Airdata 300 ADSL

11n Wireless 300 Mbps ADSL 2/2+ Modem-Router

manual

Version 1.0

Contents

1. PRODUCT INFORMATION 1

1.1 Product Features 2

1.2 Package Contents 3

***1.3 Front Panel* 4**

***1.4 Rear Panel* 5**

2. SYSTEM AND NETWORK SETUP 6

2.1 Installing the ADSL modem-router to your Network 6

3. SETUP WIZARD 7

4. IP ADDRESS SETTING 15

5. WEB MANAGEMENT CONFIGURATION 18

6. INTERFACE SETUP 26

6.1 Internet 26

6.2 LAN 31

6.3 Wireless 34

7. ADVANCED SETUP 42

7.1 Firewall 42

7.2 Routing 43

7.3 NAT 46

7.4 ADSL 50

8. ACCESS MANAGEMENT 51

8.1 ACL 51

8.2 Filter 53

8.3 IP/MAC Filter 54

8.4 Application Filter 56

8.5 URL Filter 57

8.6 SNMP 58

8.7 UPnP 59

8.8 DDNS 60

9. MAINTENANCE 62

9.1 Administrator 62

9.2 Time Zone 63

9.3 Firmware 64

9.4 System Restart 65

9.5 Diagnostics 66

10. STATUS 67

10.1 Device Info 67

10.2 System Log 68

10.3 Statistics 69

11. TECHNICAL SUPPORT 70

1. Product Information

Crypto's Airdata 300 ADSL is a cost-effective ADSL2+ router, with the combination of an ADSL2+ modem, router, Ethernet network switch and wireless access point, you can surf the Internet through your ADSL2/2+ broadband connection without investing on other devices.

This router can support downstream transmission rates of up to 24Mbps and upstream transmission rates of up to 1Mbps. It supports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), RFC 1483/2684 encapsulation over ATM (bridged or routed) and PPP over Ethernet (RFC 2516) to establish a connection with ISP. The product also supports VC-based and LLC-based multiplexing.

With built-in IEEE 802.11b/g/Draft-N wireless network capability, all computers and wireless-enabled network devices (including PDA, cellular phones, game consoles) can connect to this ADSL router without additional cabling. New Draft-N wireless capability also gives you the highest speed of wireless experience ever! With a compatible wireless card installed in your PC, you can transfer files at speeds of up to 300Mbps. The radio coverage is also doubled, allowing you to get the benefits of wireless networking thought your house or office.

Utilizing the web management interface, users can easily configure the various functions of the router including DHCP server, NAT, virtual server, DMZ, access control, IP/MAC/Application/URL filter, Firewall, PPTP/IPSec/L2TP pass-through, DDNS, UPnP, Wireless and etc.

The Crypto Airdata 300 ADSL modem- router is a high performance and high-speed device that provides a full rate of ADSL2+ standard with the superb reliability and a complete solution for home and office application.

1.1 Product Features

ADSL2/2+ Compliance

- Support downstream rates of up to 24Mbps and upstream rates of up to 1Mbps.
- Compliant to ITU-T G.992.1 (G.dmt), G.992.2 (G.lite), G.992.3 (ADSL2), G.992.4 (splitterless ADSL2), G.992.5 (ADSL2+) for Annex A, B. (Annex A and B are supported in different H/W platform)
- Supports Multi-Mode standard (ANSI T1.413, Issue 2; G.dmt (G.992.1); G.994.1 and G.996.1 (for ISDN only); G.991.1;G.lite (G992.2)).
- Multiple Protocols over AAL5 (RFC 1483/2684).
- PPP over AAL5 (RFC 2364).
- PPP over Ethernet (RFC 2516).

Support 802.11n Wireless Access Point

- Complies with IEEE 802.11n draft 2.0, IEEE 802.11g and IEEE 802.11b standards.
- Further coverage, less dead spaces and higher throughput with MIMO technology.
- High data rate – up to 300Mbps network speed.
- Supports 64-bit/128-bit WEP, WPA-PSK and WPA2-PSK wireless security functions.
- Supports WPS (WiFi Protected Setup) to easy connect wireless network without configuring the security.
- Support Auto Channel Selection.
- Supports MAC address filtering.

Router

- NAT (Network Address Translation) IP Sharing
- Virtual Server
- DMZ
- VPN Pass Through (IPSec/PPTP/L2TP)
- SPI Anti-DOS Firewall
- DHCP Server and Client

Access Management

- ACL (Access Control)
- IP/MAC/Application/URL Filter
- UPnP (Universal Plug and Play)
- SNMP
- Dynamic DNS

1.2 Package Contents

The product package should have the following items:

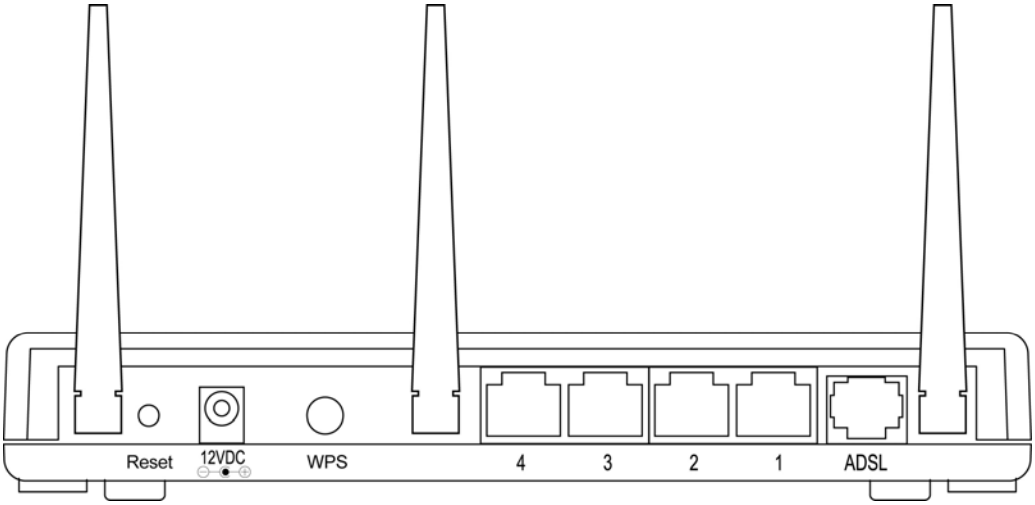
- One ADSL2/2+ Router (Annex A or B)
- Three Detachable Dipole Antennas
- One Power Adapter (12VDC, 1A)
- One RJ-45 Ethernet Cable (100 cm)
- One RJ-11 Telephone Line (180 cm)
- One Quick Installation Guide
- One CD with full User Manual

1.3 Front Panel

On the router's front panel there are LED lights that inform you the router's current status. Below is an explanation of each LED and its description.

LED	Light Status	Description
PWR (Green)	On	The router is ready
WLAN (Yellow)	Off	Wireless LAN is disabled
	Blinking	Wireless traffic is transmitting or receiving
WPS (Yellow)	Off	WPS function is disabled
	Blinking	WPS function is enabled
ADSL (Green)	On	Connected to an ADSL DSLAN successfully
	Blinking	No connection
LAN LNK/ACT (Port 1-4)	On	The LAN cable is connected to the router
	Off	No network connection.
	Blinking	Network traffic transferring or receiving through the LAN port

1.4 Rear Panel



1) Antenna Connector

   The antenna connector of the router is reverse SMA connector. It allows you to connecting an external antenna with reverse SMA connector to the router easily.

2) Reset

   The Reset button can be used to reset the router or restore to factory defaults.

   - If problems occur with your router, press the router's reset button with a pencil tip (for less than 5 seconds) and the router will re-boot itself, keeping your original configurations.

   - If problems persist or you experience extreme problems or you forgot your password, press the reset button for longer than 5 seconds and the router will reset itself to the factory default settings (**warning**: your original configurations will be replaced with the factory default settings)

3) Power Jack
   Please plug the power adapter attached with the ADSL Router to the power jack. The power adapter is 12VDC, 1A.

4) WPS
   Wi-Fi Protected Setup (WPS) is the simplest way to build connection between wireless network clients and this ADSL router. Press this button on the router and enable WPS function of the wireless clients, the router and clients will automatically configure the security key and connect directly. Please note that the router will wait for WPS requests from wireless clients in 2 minutes after the WPS button is pressed.

5) Local Area Network (LAN)
   The router's 4 LAN ports are where you connect your LAN's PCs, printer servers, hubs and switches etc.

6) ADSL
   Connect the supplied RJ-11 telephone line to this port and your ADSL/telephone network.

2. System and Network Setup

2.1 Installing the ADSL modem-router to your Network

Step 1. Connect the ADSL Line

Connect the router to your ADSL cable through the supplied RJ-11 telephone line.

Step 2. Connect the router to your LAN network

Connect the router to your PC , hub or switch by attaching the Ethernet cable to the LAN port of the router.

Step 3. Connect the Power Adapter to the Router

Connect the power adapter to the power jack on the rear panel of router.

Step4: Check the ADSL LED on the Router

The ADSL LED will be ON if the router is connected to the ADSL line and receives the ADSL signals successfully. If the LED is blinking, please contact with your ISP (Internet Service Provider) to check the problem.

Note: You must use the power adapter shipped along with the router, do NOT use any other power adapter from other sources.

3. Setup Wizard

This router provides a Setup Wizard tool for user configuration of the ADSL settings. This wizard collects some ISP's ADSL settings so that user can easy to configure the router's ADSL settings by only selecting the ISP vendor from the wizard.

If you cannot find your ISP from the list in the wizard, please manually set the ISP information through the wizard.

Getting Started

Before you start, please check the following items:

1. Please make sure that you have connected the ADSL cable to the router correctly. When the ADSL cable is working normally, the ADSL LED will be on.
2. Uninstall all of dial up programs if you have installed previously for the USB modem or other dial up devices.
3. It is recommended to configure the router through the Ethernet cable before you have set the wireless functions correctly.

The following procedures are operated in Windows XP. (Same procedures apply for Windows Vista also.)

Insert the CD shipped along with the ADSL router into your CD-ROM drive. The Autorun.exe program should be executed automatically. If not, run Autorun.exe manually from "Autorun" folder in the CD. The following screen will be displayed. Click "Setup Wizard".

This wizard will be executed and try to search for the ADSL Router.

If the router cannot be found, please enter the IP Address and the Password of the router to search again. Click "Next" to continue.

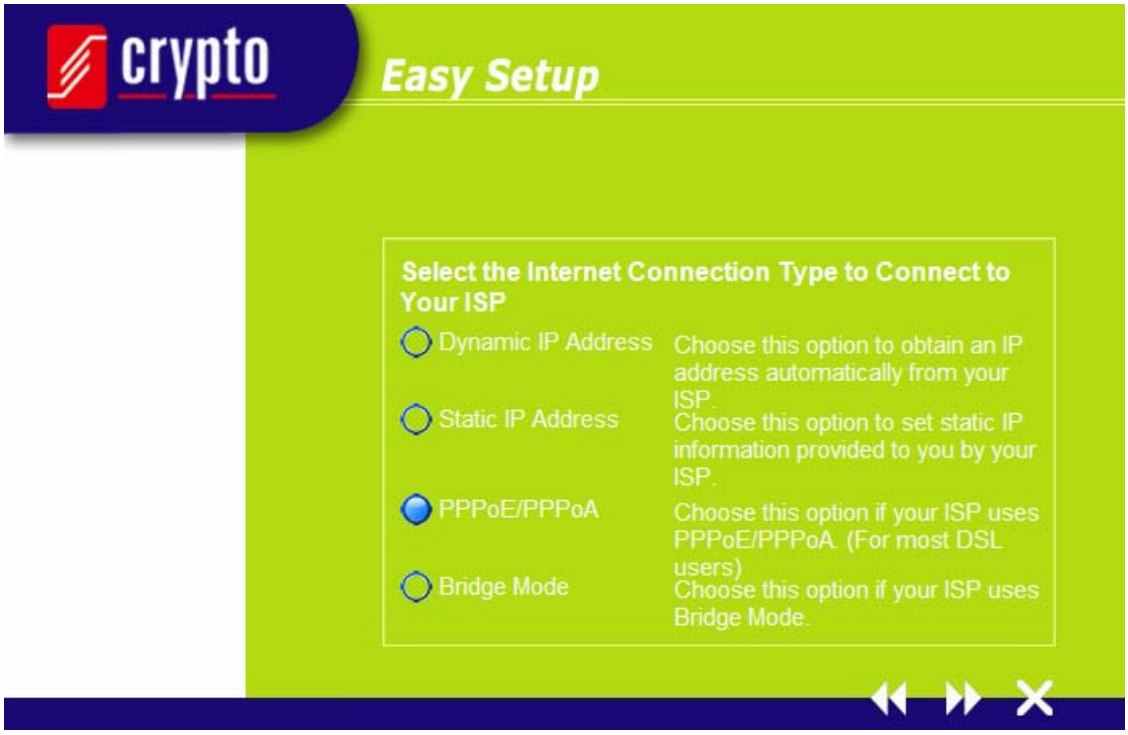
If you cannot find the ISP, please click “Other” to reselect the country or manual configure the ISP information.

Before configuring the ISP manually, please check with your ISP (Internet Service Provider) what kind of service is provided such as PPPoE, PPPoA or RFC1483/2684. Gather the information as illustrated in the following table and keep it for reference.

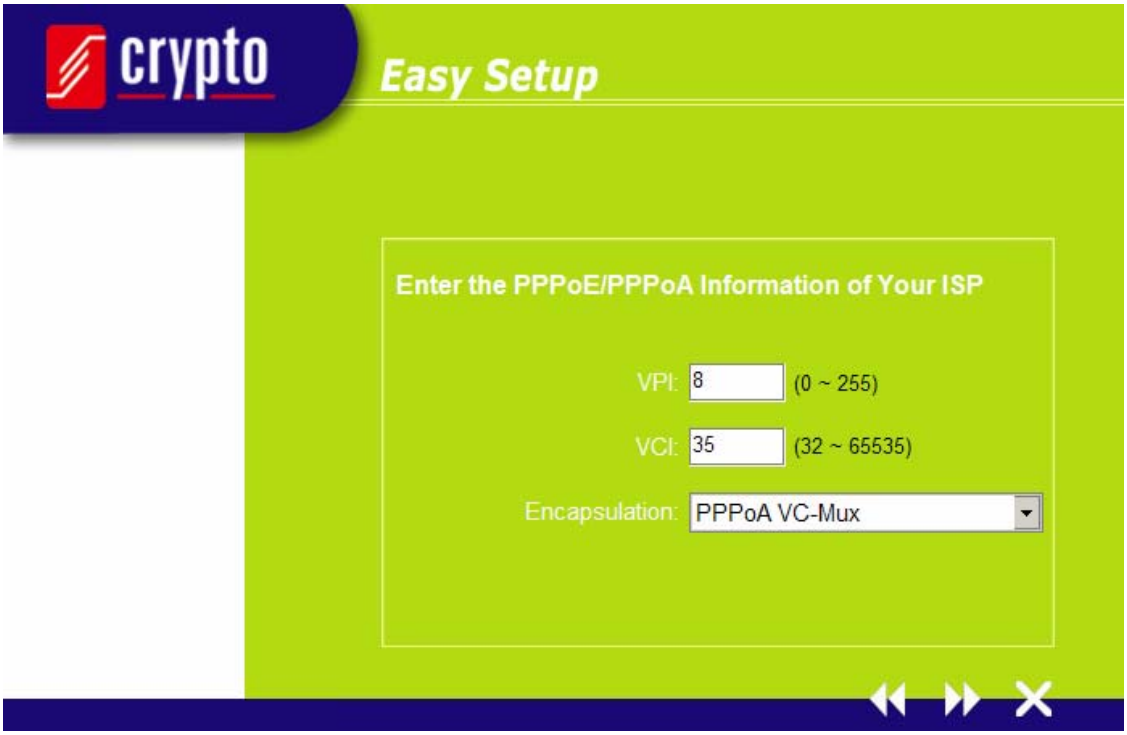
PPPoE	VPI/VCI, VC-based/LLC-based multiplexing, Username, Password (and Service Name).
PPPoA	VPI/VCI, VC-based/LLC-based multiplexing, Username, Password.
RFC1483 Bridged	VPI/VCI, VC-based/LLC-based multiplexing to use Bridged Mode.
RFC1483 Routed	VPI/VCI, VC-based/LLC-based multiplexing, IP Address, Subnet Mask, Gateway Address, and Domain Name System (DNS) IP Address (It is a fixed IP Address).

Please select “Other”.

Please check with your ISP the connection type of the ADSL line. Select the Connection Type and continue.


crypto
Easy Setup
Select the Internet Connection Type to Connect to Your ISP
Dynamic IP Address
Choose this option to obtain an IP address automatically from your ISP.
Static IP Address
Choose this option to set static IP information provided to you by your ISP.
PPPoE/PPPoA
Choose this option if your ISP uses PPPoE/PPPoA. (For most DSL users)
Bridge Mode
Choose this option if your ISP uses Bridge Mode.

Input the VPI, VCI and Encapsulation data supplied by your ISP. ***Note: The values represented here are used for demonstration purposes only.***



Enter the Username and Password which your ISP has provided to you if it is needed.
Click “Next”.

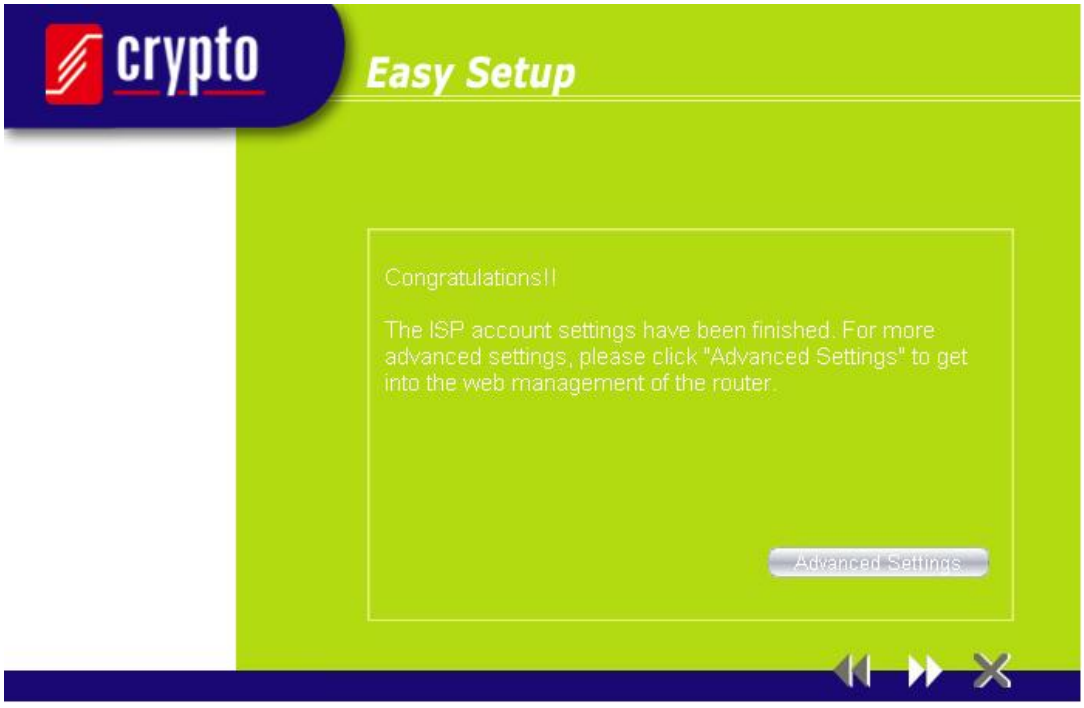
Save the settings and reboot the router.

After saving and rebooting the router, the ISP settings are all finished. This wizard will then help to set your computer to obtain IP Address from the router automatically.

The wizard will try to connect to the ISP you have selected. If the connection is failed, please run the wizard to select the ISP again.

crypto
Easy Setup
Failed to connect to the ISP, please check if you have selected the correct ISP. To re-configure the settings, please run the wizard again.

Please make sure that you have disabled any antivirus program that you might use in order for the wizard to complete the configuration. After the successful completion of the wizard you will get the following page.


crypto
Easy Setup
Congratulations!!
The ISP account settings have been finished. For more advanced settings, please click "Advanced Settings" to get into the web management of the router.
Advanced Settings

When you connect with the ISP, you can browse the Internet and use all the capabilities of the Airdata 300 ADSL device.

4. IP Address Setting

Using the router to get into the Internet, the PCs in the network must have Ethernet adapter installed and be connected to the router either directly or through a hub or switch. The TCP/IP protocol of each PC has to been installed and the IP Address of each PC has to be set in the same subnet as the router.

The router's default IP Address is **192.168.2.1** and the subnet mask is **255.255.255.0**. PCs can be configured to obtain IP Address automatically through the DHCP Server of the router or a fixed IP Address in order to be in the same subnet as the router. By default, the DHCP Server of the router is enabled and will dispatch IP Address to PC from **192.168.2.100** to **192.168.2.200**. It is strongly recommended to set obtaining IP address automatically.

This section shows you how to configure your PC's so that it can obtain an IP address automatically for either Windows 95/98/Me, 2000 or NT operating systems. The following is a step-by-step illustration on how to configure your PC to obtain an IP address automatically for **Windows Vista, Windows XP**, **Windows 2000, Windows 95/98/Me and Windows NT.**

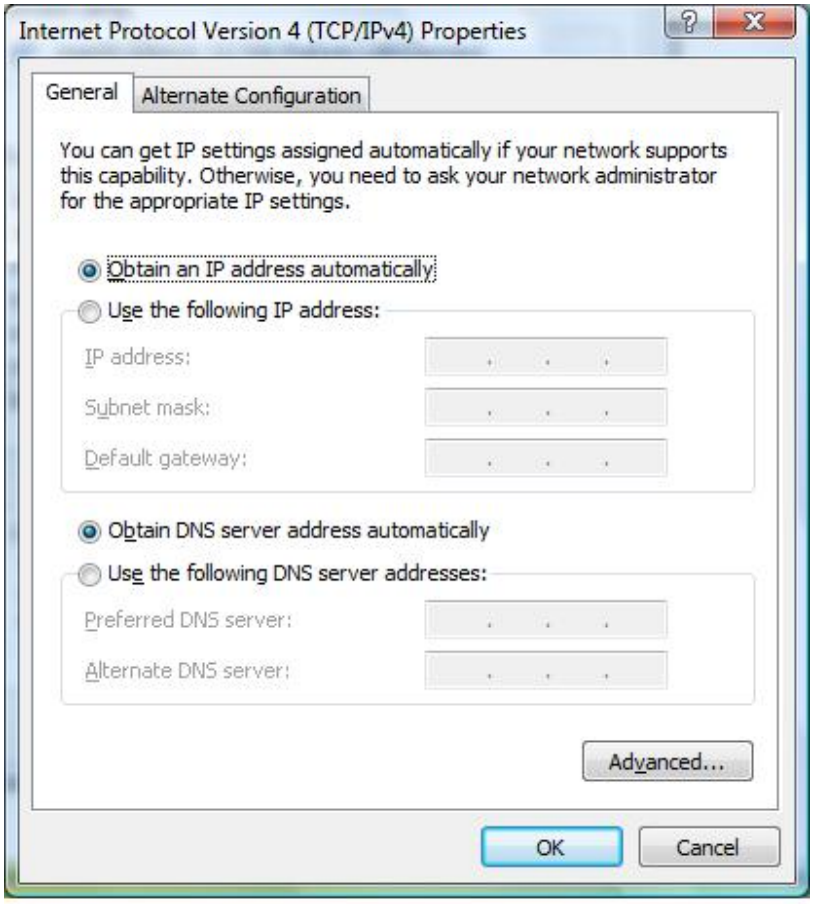
Windows Vista

1. Click the *Start* button and select *Settings and then select Control Panel.* Double click *Network and Sharing Center*, the *Network and Sharing Center* window will appear.

2. Click *Manage network connections* and right click on the *Local Area Connection* icon and select *Properties*. The *Local Area Connection* window will appear.

3. Check your list of Network Components. You should see Internet Protocol Version 4 (TCP/IPv4) on your list. Select it and click the *Properties* button.

4. In the Internet Protocol Version 4 (TCP/IPv4) Properties window, select *Obtain an IP address automatically* and *Obtain DNS server address automatically* as shown on the following screen.


Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

5. Click *OK* to confirm the setting. Your PC will now obtain an IP address automatically from your router's DHCP server.

Note: Please make sure that the router's DHCP server is the only DHCP server available on your LAN.

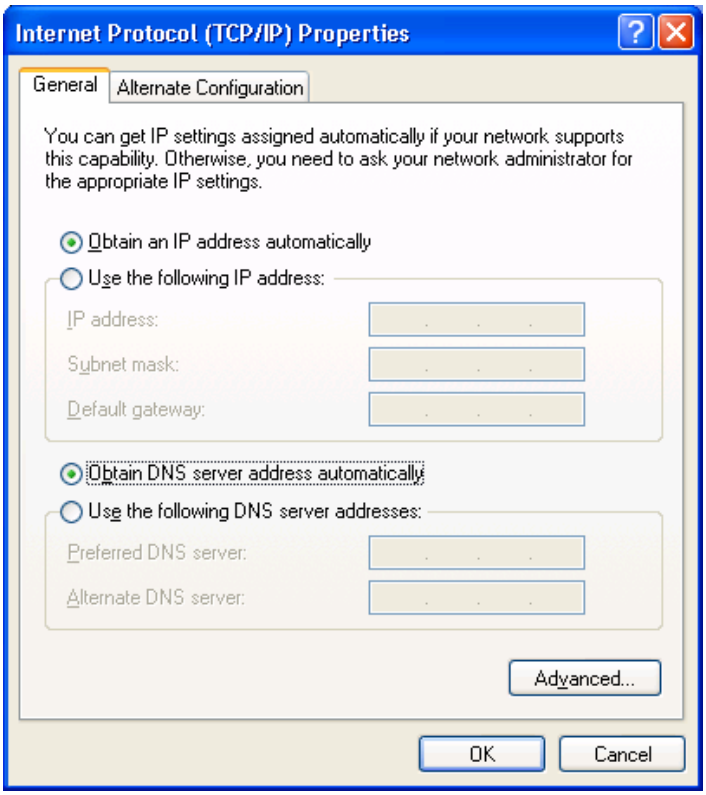
Windows XP

1. Click the *Start* button and select *Control Panel* and then double click *Network Connections.* The *Network Connections* window will appear.

2. Right click on the *Local Area Connection* icon and select *Properties*. The Local Area Connection window will appear.

3. Check your list of Network Components. You should see Internet Protocol [TCP/IP] on your list. Select it and click the *Properties* button.

4. In the Internet Protocol (TCP/IP) Properties window, select *Obtain an IP address automatically* and *Obtain DNS server address automatically* as shown on the following screen.


Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

5. Click *OK* to confirm the setting. Your PC will now obtain an IP address automatically from your router's DHCP server.

Note: Please make sure that the router's DHCP server is the only DHCP server available on your LAN.

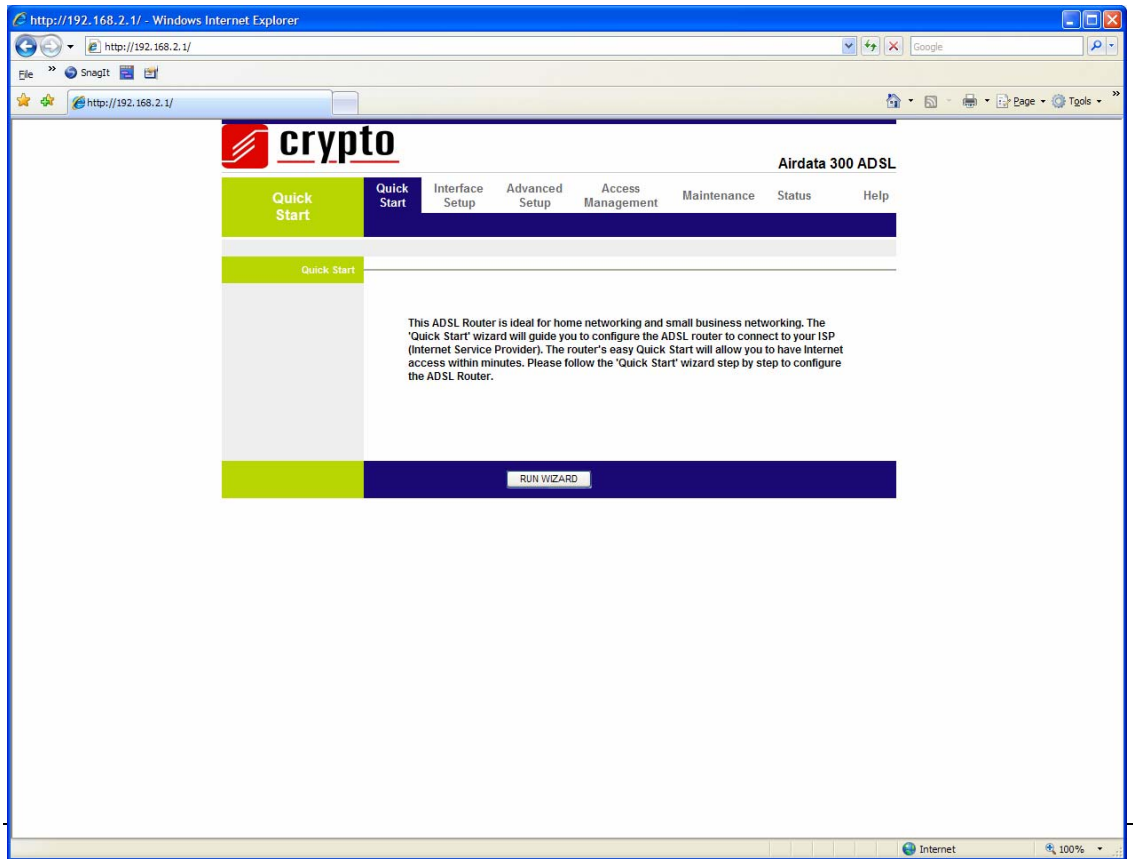
5. Web Management Configuration

Once you have configured your PCs to obtain an IP address automatically, the router's DHCP server will automatically give your LAN clients an IP address. By default the router's DHCP server is enabled so that you can obtain an IP address automatically.

Once your PC has obtained an IP address from your router, enter the default IP address **192.168.2.1** (router's IP address) into your PC's web browser and press <enter>

The login screen below will appear. Enter the "User Name" and "Password" and then click <OK> to login. By default the user name is "**admin**" and the password is "**admin**". For security reasons it is recommended that you change the password as soon as possible.

The **HOME** page screen below will appear. The **Home** Page is divided into seven sections: **Quick Start**, **Interface Setup, Advanced Setup, Access Management, Maintenance, Status and Help**.


http://192.168.2.1/ - Windows Internet Explorer
crypto
Airdata 300 ADSL
Quick Start
Interface Setup
Advanced Setup
Access Management
Maintenance
Status
Help
Quick Start
This ADSL Router is ideal for home networking and small business networking. The 'Quick Start' wizard will guide you to configure the ADSL router to connect to your ISP (Internet Service Provider). The router's easy Quick Start will allow you to have Internet access within minutes. Please follow the 'Quick Start' wizard step by step to configure the ADSL Router.
RUN WIZARD

Quick Start

Follow the setup process in the Quick Start; you can quickly set the router as an Internet Access device.

Interface Setup

It allows you to configure the Internet, LAN and Wireless access.

Advanced Setup

This section contains configurations for the router's advanced functions such as Firewall, Virtual Server, DMZ, ADSL Mode, ADSL Type, etc.

Access Management

It allows you to configure ACL, IP/MAC/Application/URL Filter, SNMP, UPnP and DDNS functions.

Maintenance

If you want to change the administrator's password, restart the router, update the firmware, backup the settings, diagnose the connection or change the Tome Zone of the router, please select this menu.

Status

The router's setup information, system log and some statistics can be viewed here.

Help

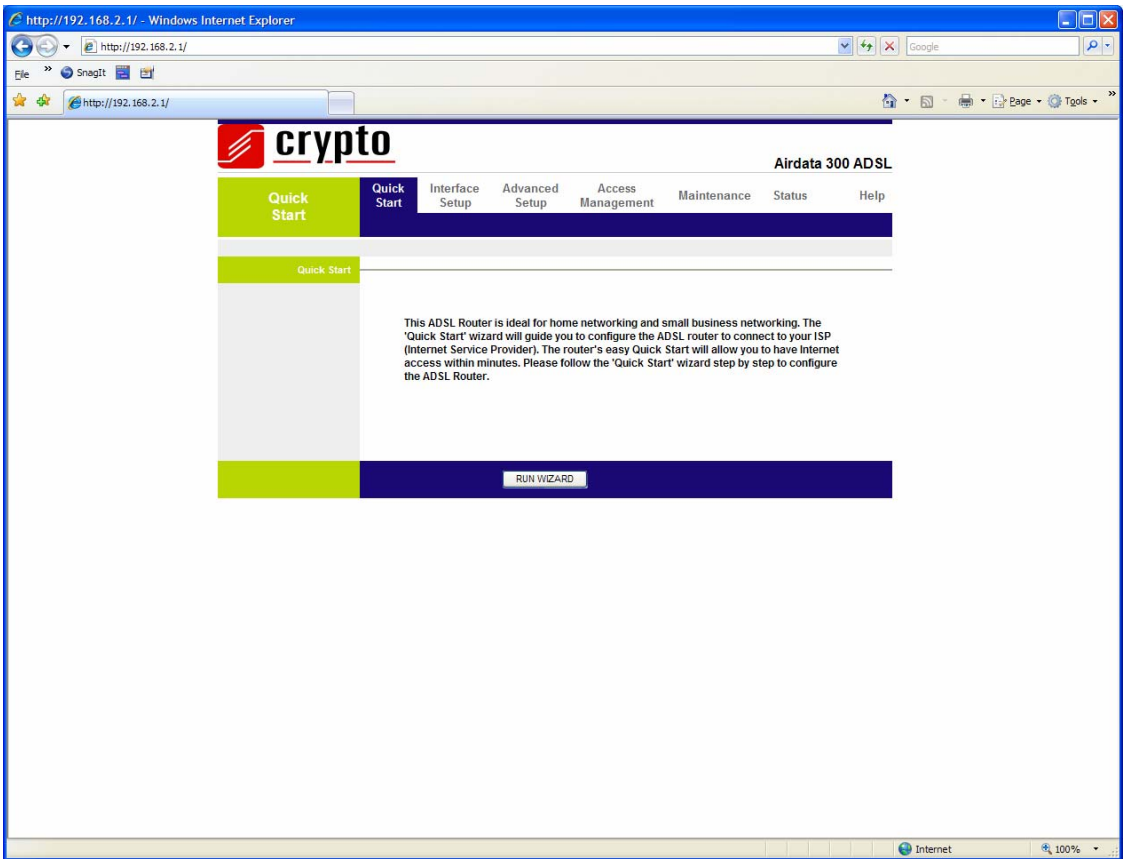
If you want to know about the settings of the router quickly, please refer to the description in the Help menu.

Quick Start

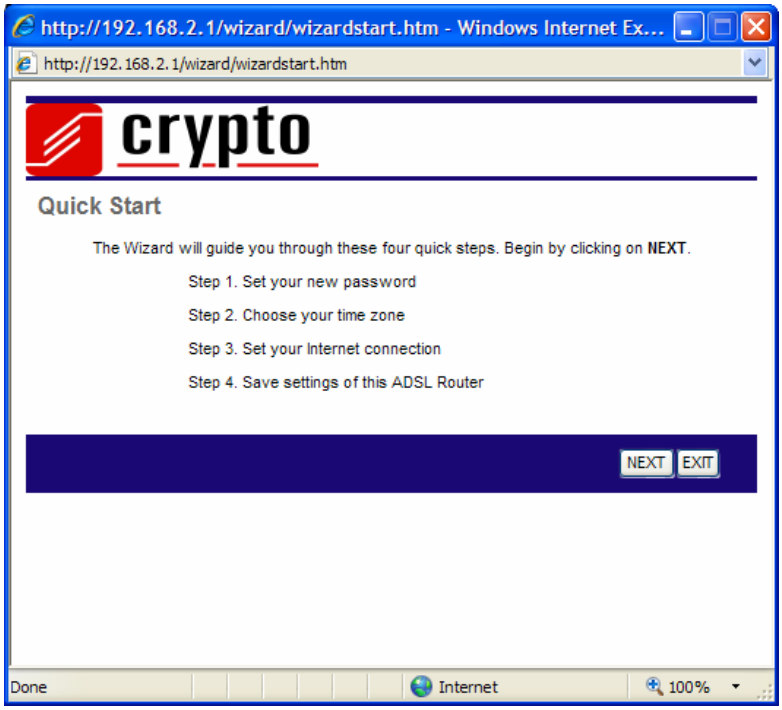
The Quick Start section is designed to get you using the router as quickly as possible. Before configuring the router, please check with your ISP (Internet Service Provider) what kind of service is provided such as PPPoE, PPPoA or RFC1483/2684. Gather the information as illustrated in the following table and keep it for later reference.

PPPoE	VPI/VCI, VC-based/LLC-based multiplexing, Username, Password (and Service Name).
PPPoA	VPI/VCI, VC-based/LLC-based multiplexing, Username, Password.
RFC1483 Bridged	VPI/VCI, VC-based/LLC-based multiplexing to use Bridged Mode.
RFC1483 Routed	VPI/VCI, VC-based/LLC-based multiplexing, IP Address, Subnet Mask, Gateway Address, and Domain Name System (DNS) IP Address (It is a fixed IP Address).

In the Quick Start, click “Run Wizard” to start the configuration.


http://192.168.2.1/ - Windows Internet Explorer
crypto
Airdata 300 ADSL
Quick Start
Quick Start
Interface Setup
Advanced Setup
Access Management
Maintenance
Status
Help
Quick Start
This ADSL Router is ideal for home networking and small business networking. The 'Quick Start' wizard will guide you to configure the ADSL router to connect to your ISP (Internet Service Provider). The router's easy Quick Start will allow you to have Internet access within minutes. Please follow the 'Quick Start' wizard step by step to configure the ADSL Router.
RUN WIZARD

Please follow the steps in the setup wizard to complete the configuration of the Internet connection.



Step 1: Set your new password

Please enter the new password and confirm the password again.

Step 2: Choose your tome zone

Please select the tome zone where you are located.

Step 3: Set your Internet connection

Please check with your ISP the connection type of the ADSL line.

http://192.168.2.1/wizard/wizardConType.htm - Windows Interne...
http://192.168.2.1/wizard/wizardConType.htm
crypto
Quick Start - ISP Connection Type
Select the Internet connection type to connect to your ISP. Click NEXT to continue.
Dynamic IP Address
Choose this option to obtain a IP address automatically from your ISP.
Static IP Address
Choose this option to set static IP information provided to you by your ISP.
PPPoE/PPPoA
Choose this option if your ISP uses PPPoE/PPPoA. (For most DSL users)
Bridge Mode
Choose this option if your ISP uses Bridge Mode.
BACK
NEXT
EXIT
Done
Internet
100%

Step 4: Input the data supplied by your ISP

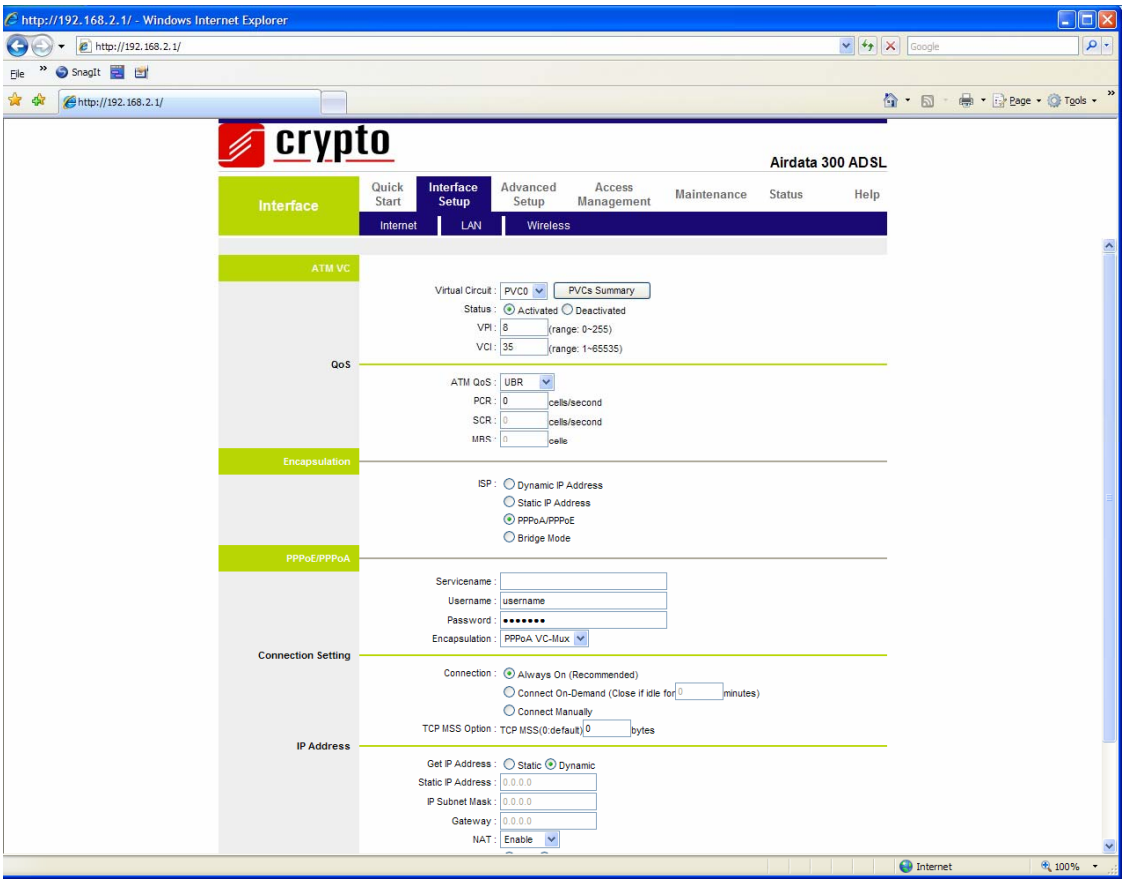
Step 5: Re-start your ADSL router

Click “Next” to save the settings and restart the router.

http://192.168.2.1/wizard/wizardcomp.htm - Windows Internet E...
http://192.168.2.1/wizard/wizardcomp.htm
crypto
Quick Start Complete !!
The Setup Wizard has completed. Click on BACK to modify changes or mistakes. Click NEXT to save the current settings.
BACK NEXT EXIT
Done
Internet
100%

6. Interface Setup

6.1 Internet



- **ATM VC**

Parameter	Description
Virtual Circuit	VPI (Virtual Path Identifier) and VCI (Virtual Channel Identifier define a virtual circuit.
VPI	VPI is a virtual path that determines the way an ATM cell should be routed. The VPI is an 8-bit (in UNI) or 12-bit (in NNI) number that is included in the header of an ATM cell. The valid range for the VPI is 0 to 255. Enter the VPI

assigned by the ISP.

Parameter	Description
VCI	VCI is the label given to an ATM VC to identify it and determine its destination. The VCI is a 16-bit number that is included in the header of an ATM cell. The valid range for the VCI is 32 to 65535. Enter the VCI assigned by the ISP.
ATM QoS	CBR (Constant Bit Rate) – This class is used for emulating circuit switching. The cell rate is constant with time. Select CBR to specify fixed (always on) bandwidth for voice or data traffic. UBR (Unspecified Bit Rate) – Select UBR for applications that are non-time sensitive, such as e-mail. rtVBR (real time Variable Bit Rate) – This class is similar to nrtVBR but is designed for applications that are sensitive to cell-delay variation. Examples for real-time VBR are voice with speech activity detection (SAD) and interactive compressed video. nrtVBR (non-real time Variable Bit Rate) – This class allows users to send traffic at a rate that varies with time depending on the availability of user information. Statistical multiplexing is provided to make optimum use of network resources. Multimedia e-mail is an example of nrtVBR.
PCR	Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the PCR (Peak Cell Rate). This is the maximum rate at which the sender can send cells.
SCR	SCR (Sustain Cell Rate) is the average rate, as measured over a long interval, in the order of the connection lifetime.

| Parameter | Description |

MBS	MBS (Maximum Burst Size) refers to the maximum number of cells that can be sent at the peak rate. Type the MBS, which is less than 65535.

- **Encapsulation**

The router can be connected to your service provider in any of the following ways.

Parameter	Description
Dynamic IP Address	Obtain an IP address automatically from your service provider.
Static IP Address	Uses a static IP address. Your service provider gives a static IP address to access Internet services.
PPPoE/ PPPoA	PPPoE (PPP over Ethernet) and PPPoA (PPP over ATM) are common connection methods used for xDSL.
Bridge Mode	Bridge Mode is a common connection method used for xDSL modem.

- **Dynamic IP Address/Static IP Address/PPPoE/PPPoA/Bridge Mode**

After you have selected the ISP Type, this web page will be varied depending on the ISP Type you select. You have to continue setting some parameters. Please refer to the following table for the explanation of each parameter.

Parameter	Description
Service name	Enter the name of your ISP.
User Name	Enter the username exactly as your ISP assigned.
Password	Enter the password that your ISP has assigned to you.
Encapsulation	Please check with your ISP the method of multiplexing. In Bridge Mode, please select “1483 Bridge IP LLC” or “1483 Bridge IP VC-Mux”. In PPPoE/PPPoA mode, please select “PPPoE LLC”, “PPPoE VC-Mux”, “PPPoA LLC”, or “PPPoA

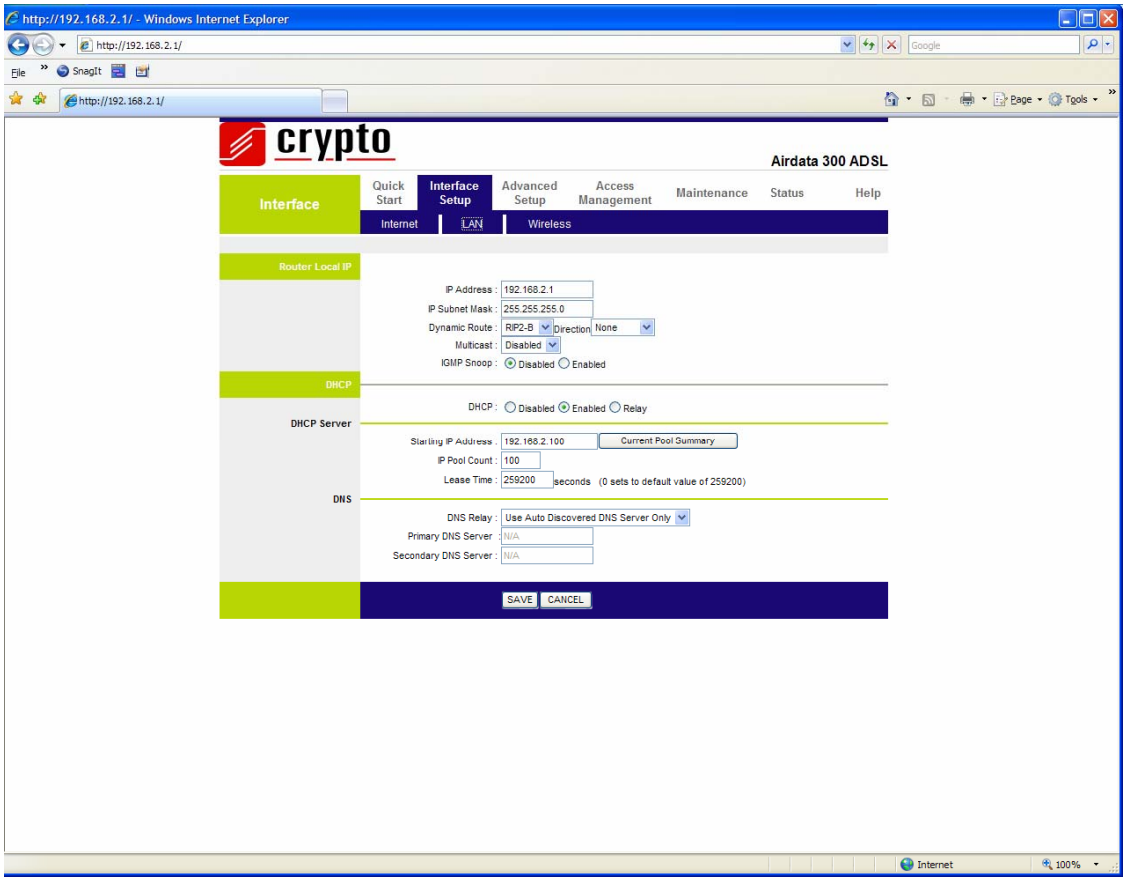
	VC-Mux".
Bridge Interface	This router has built-in ADSL modem and is able to connect to ISP directly. Alternatively, if you want to use the dial up software to manually connect to the ISP, you have to activate the "Bridge Interface".

Parameter	Description
Connection	Always On – The connection will be kept always on. If the connection is interrupted, the router will re-connect automatically. Connect On-Demand – Only connect when you want to surf the Internet. "Close if idle for xx minutes" is set to stop the connection when the network traffic is not sending or receiving after an idle time. Connect Manually – After you have selected this option, please go to Status page. You will see the "Connect" button, click it and the router will connect to the ISP. If you want to stop the connection, please click "Disconnect" button.
TCP MSS Option	The "TCP MSS Option" enables the configuration of the maximum segment size (MSS) for transient packets that traverse a router, specifically TCP segments in the SYN bit set, when PPPoE is being used in the network. Please specify the MSS range from 100 to 1452 bytes or 0 byte as the default value.
Get IP Address	Choose Static or Dynamic IP Address. If Static IP is selected, please set the IP Address, Subnet Mask and Gateway obtained from your ISP.
Static IP Address	Enter the IP Address assigned by your ISP.

IP Subnet Mask	Enter the Subnet Mask assigned by your ISP.
Gateway	Enter the Gateway assigned by your ISP.

Parameter	Description
NAT	NAT (Network Address Translation), is an Internet standard that enables a local-area network (LAN) to use one set of IP addresses for internal traffic and a second set of addresses for external traffic. When NAT is enabled, the router will help to make all necessary IP address translations for the PC connected to the router to access the Internet.
Default Route	When “Default Router” is enabled, all the packets for destinations not known by the router's routing table are sent to the default route. By default, it is enabled.
TCP MTU Option	MTU (Maximum Transmission Unit) determines the maximum size of each packet in any transmission within the network. Please specify the MTU range from 100 to 1500 bytes or 0 byte as the default value.
Dynamic Route	Dynamic routing allows routing tables in routers to change as the possible routes change. This router supports RIP1, RIP2-B and RIP2-M protocols for dynamic routing. After the RIP protocol is selected, please choose the RIP direction from “None”, “Both”, “IN Only” or “OUT Only”.
Multicast	Specify the method of transmitting data simultaneously to many receivers. Please select “IGMP v1” or “IGMP v2” as the multicast protocol or select “Disabled” to disable the function.
MAC Spoofing	Once your ISP service requires identifying the MAC address of the devices. You can enable MAC Spoofing function and enter the valid MAC address, it allows you to change the MAC address of the router in order to access to the Internet service.

6.2 LAN



- **Router Local IP**

Parameter	Description
IP Address	Enter the IP Address of the ADSL router for the local user to access the router's web page. By default, the IP Address is **192.168.2.1**.
IP Subnet Mask	Enter the Subnet Mask of the ADSL router. By default, the Subnet Mask is **255.255.255.0**.
Dynamic Route	Dynamic routing allows routing tables in routers to change as the possible routes change. This router supports RIP1, RIP2-B and RIP2-M protocols for dynamic routing. After the RIP

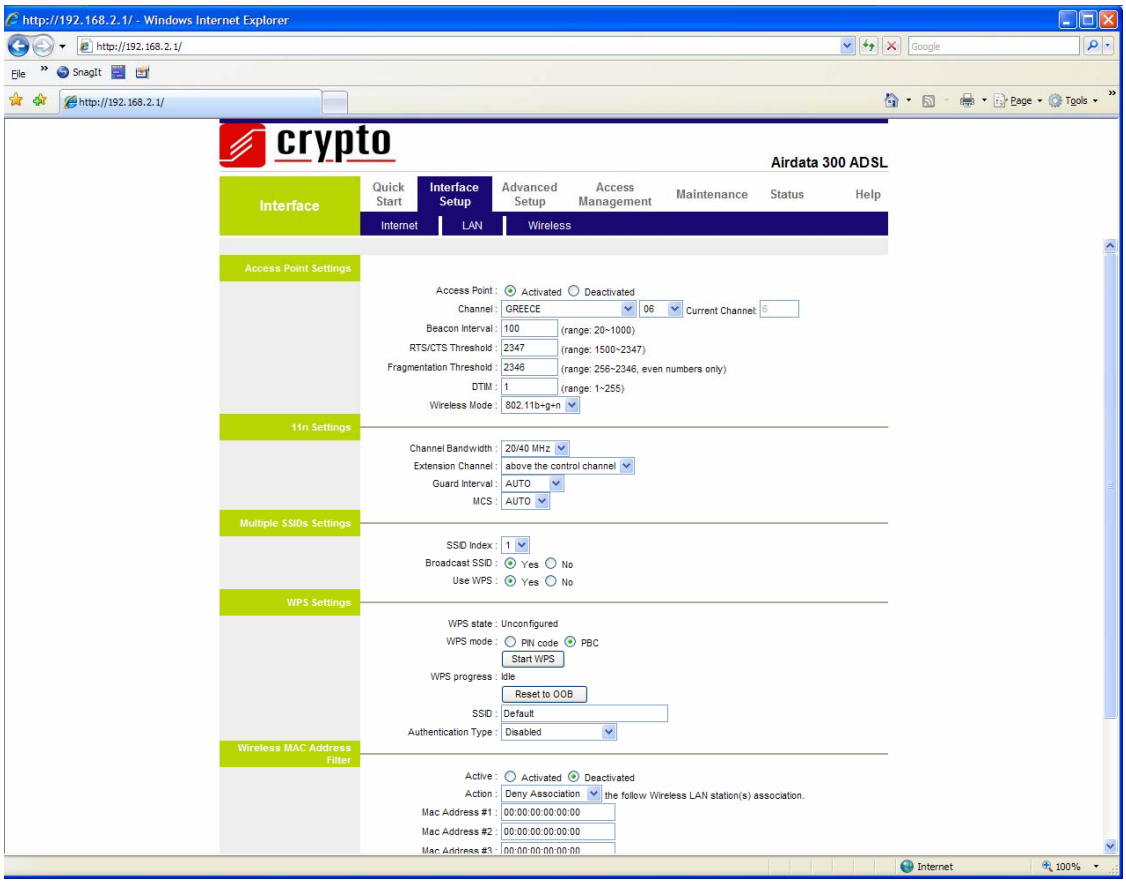
	protocol is selected, please choose the RIP direction from "None", "Both", "IN Only" or "OUT Only".
Parameter	**Description**
Multicast	Specify the method of transmitting data simultaneously to many receivers. Please select "IGMP v1" or "IGMP v2" as the multicast protocol or select "Disabled" to disable the function.
IGMP Snoop	When "IGMP Snoop" (Internet Group Management Protocol Snoop) is enabled, the router can make intelligent multicast forwarding decisions by examining the contents of each frame's IP header. Without the function, the router will broadcast the multicast packets to each port and may create excessive traffic on the network and degrade the performance of the network.

- **DHCP**

Parameter	**Description**
DHCP	You can enable or disable the DHCP server. By enabling the DHCP server the router will automatically give your LAN clients an IP address. If the DHCP is not enabled then you'll have to manually set your LAN client's IP addresses.
Starting IP Address	If the DHCP Server is enabled, please set the "Starting IP Address" which will be the first IP Address assigned to the LAN client. By default, the "Starting IP Address" is **192.168.2.100**.
IP Pool Count	You can select a particular IP address range for your DHCP server to issue IP addresses to your LAN Clients. By default, the "IP Pool Count" is 100. The IP range is starting from IP 192.168.2.100 to 192.168.2.199.

Parameter	Description
Lease Time	In the Lease Time setting you can specify the time period that the DHCP Server lends an IP address to your LAN clients. The DHCP will change your LAN client's IP address when this time threshold period is terminated.
DNS Relay	A Domain Name System (DNS) server is like an index of IP addresses and Web addresses. If you type a Web address into your browser, such as "www.router.com", a DNS server will find that name in its index and the matching IP address. Please select "Use Auto Discovered DNS Server Only" to auto set the DNS Server. If there is a DNS server that you would rather to use, please select "Use Discovered DNS Server Only" and you need to specify the IP address of that DNS server.
Primary DNS Server	Enter the ISP's DNS Server IP Address; or you can specify your own preferred DNS Server IP Address.
Secondary DNS Server	This is optional. You can enter another DNS Server's IP Address as a backup. The secondary DNS will be used should the Primary DNS fail.

6.3 Wireless



- **Access Point Settings**

Parameter	Description
Access Point	Activated or deactivated the wireless function of the router. When it is activated, the router will be an access point for other wireless clients to connect wirelessly.

Parameter	Description
Channel	It is the radio channel used by the wireless LAN. All devices in the same wireless LAN should use the same channel. Please select the country you are located and designate a channel that the router will use. For product available in the USA/Canada market, only channel 1~11 can be operated. For product

	available in Europe market, only channel 1~13 can be operated. Selection of other channels is not permitted. If you want to let the router automatically to find an available channel with the highest signal strength, please select "Auto". The auto-selective channel will be shown in the "Current Channel" field.
Beacon Interval	The interval of time that this wireless router broadcast a beacon. Beacon is used to synchronize the wireless network. The range for the beacon period is between 20 and 1000 with a typical value of 100 (milliseconds).
RTS/CTS Threshold	When the packet size is smaller than the RTS threshold, the wireless router will not use the RTS/CTS mechanism to send this packet. The range is from 1500 to 2347.
Fragmentation Threshold	Fragment Threshold specifies the maximum size of packet during the fragmentation of data to be transmitted. If you set this value too low, it will result in bad performance. Enter a value from 256 to 2346.
DTIM	Determines the interval the Access Point will send its broadcast traffic. The range is from 1 to 255 and the default value is 3 beacons.

Parameter	Description
Wireless Mode	802.11b – It only allows 802.11b wireless network client to connect this router (maximum transfer rate 11Mbps). 802.11g – It only allows 802.11g wireless network client to connect this router (maximum transfer rate 54Mbps). 802.11b+g – It only allows 802.11b and 802.11g wireless network client to connect this router (maximum transfer rate 11Mbps for 802.11b clients, and maximum 54Mbps for

	802.11g clients). 802.11n – It only allows 802.11n wireless network client to connect this router (maximum transfer rate 300Mbps). 802.11g+n – It allows 802.11g, and 802.11n wireless network client to connect this router (maximum transfer rate 54Mbps for 802.11g clients, and maximum 300Mbps for 802.11n clients). 802.11b+g+n – It allows 802.11b, 802.11g, and 802.11n wireless network client to connect this router (maximum transfer rate 11Mbps for 802.11b clients, maximum 54Mbps for 802.11g clients, and maximum 300Mbps for 802.11n clients). NOTE: For 802.11b and 802.11g mode, the signals can be transmitted only by antenna 1 (The antenna in the right side of the rear panel). For 802.11n mode: The router is operating in a 2T3R Spatial Multiplexing MIMO configuration. 2 antennas are for signal transmitting and 3 antennas are for signal receiving.

- **11n Settings**

Parameter	Description
Channel Bandwidth	Set channel width of wireless radio. **Do not modify default value if you don't know what it is, default setting is '20/40 MHz'.**
Extension Channel	Select the extension channel to above or below the control channel while 40MHz channel bandwidth is selected. **Do not modify the default value if you don't know what it is.**

Guard Interval	It is one of several draft-n features designed to improve efficiency. Select 400nsec to provide a shorter delay between transmission frames in 11n network. The throughput in 400nec guard interval is better than 800nsec guard interval.
MCS	Select MCS 0-15 to configure the data rate of 11n network. When MCS 15 is selected, the data rate is up to 300Mbps. It is recommended to set "Auto" and the router will negotiate with wireless clients to operate in a proper data rate.

Multiple SSIDs Settings

Parameter	Description
SSID Index	This router can support multiple SSIDs. By default, this function is disabled. You can only set a set of SSID.
Broadcast SSID	Select "Yes" to make the SSID to be visible so wireless clients can scan the router within the network. Select "No" if you want to hide the SSID of the router. Wireless clients have to set the same SSID of the router in order to access the network.
WMM	The short of Wi-Fi Multi Media, it will enhance the data transfer performance of multimedia contents when they're being transferred over wireless network.
Use WPS	Select "Yes" to enable WPS function, Select "No" to disable WPS.

WPS Settings

Wi-Fi Protected Setup (WPS) is the simplest way to build connection between wireless network clients and this router. You don't have to select encryption mode and input a long encryption pass phrase every time when you need to setup a wireless client, you only have to press a button on wireless client and this wireless router, and the WPS will do the setup for you.

This router supports two types of WPS: Push-Button Configuration (PBC), and PIN code. If you want to use PBC, you have to switch this wireless router to WPS mode and push a specific button on the wireless client to start WPS mode. You can push Reset/WPS button of this router, or select "PBC" and click "Start WPS" button in the WPS setup page to do this. If you want to use PIN code, you have to know the PIN code of wireless client and switch it to WPS mode, then set the PIN code of the wireless client you wish to connect to this router in the WPS setup page and click "Start WPS" button to start WPS mode.

Parameter	Description
WPS state	If the wireless security (encryption) function of this wireless router is enabled, you'll see "Configured" message here. If wireless security function has not been set, you'll see '"Unconfigured".
WPS mode	When PIN code is selected, you have to enter the 8-digit PIN code of the wireless client you wish to connect to this router. If PBC mode is selected, just click "Start WPS" button to start WPS mode.
AP self PIN Code	The PIN code of the router. You can enter the PIN code of the router to the wireless client so the wireless client can start WPS mode to connect to the router. The security settings of the router will be set to the same as the wireless client.

Parameter	Description
Enrollee PIN Code	Enter the PIN code of the wireless client here. If you have

	entered the PIN code of the wireless client and switch to the WPS mode, the security settings of the wireless client will be set to the same as the router.
WPS progress	Display the progress during WPS communication.
Reset to OOB	Click this button and all the wireless settings of the router will be reset to factory defaults.
SSID	The SSID (up to 32 printable ASCII characters) is the unique name identified in a WLAN. The ID prevents the unintentional merging of two co-located WLANs. The default SSID of the router is “default”.
Authentication Type	It’s very important to set wireless security settings properly. If you don’t, hackers and malicious users can reach your network and valuable data without your consent and this will cause serious security problem. This router supports WEP, WPA-PSK and WPA2-PSK authentication type. If the router has enabled the authentication, all the wireless clients settings have to be consistent with the router for building the connection.

- **WEP/WPA-PSK/WPA2-PSK and WPA-PSK/WPA2-PSK**

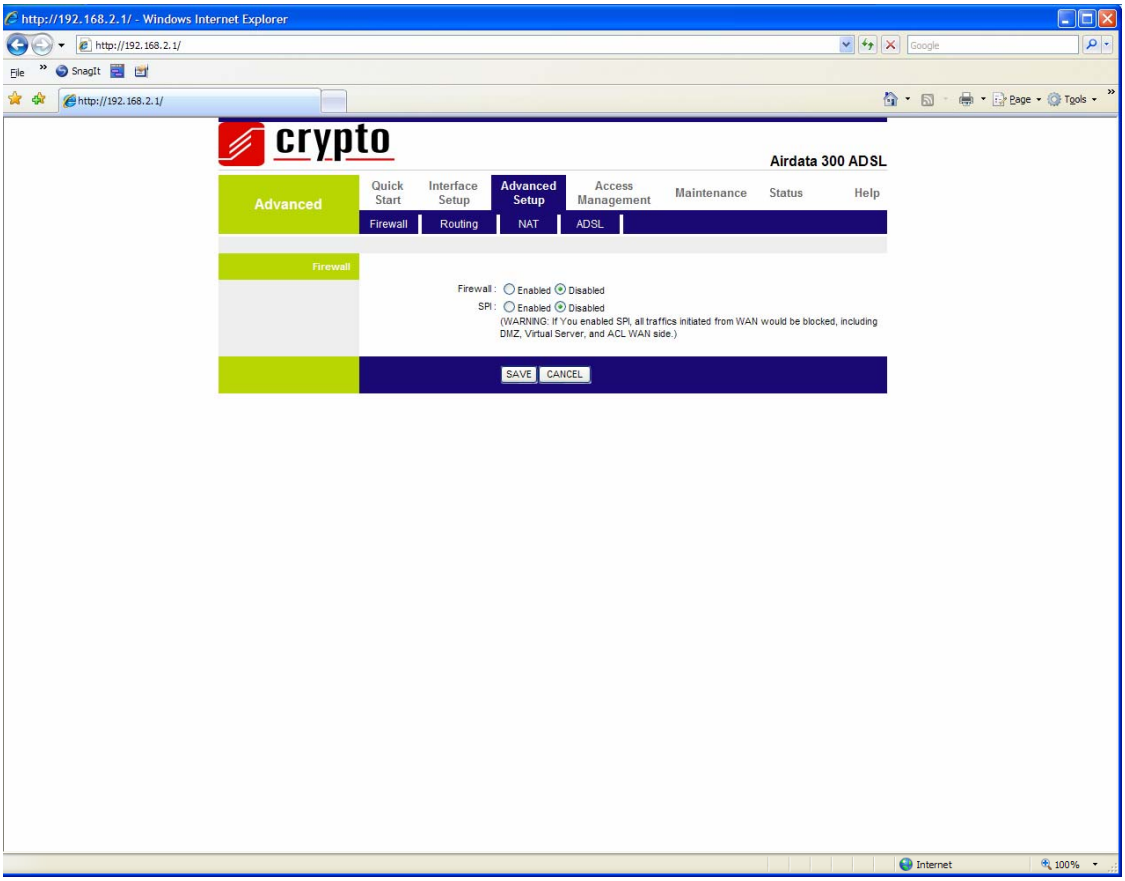
Parameter	Description
WEP-64Bits	WEP supports 64-bit and 128-bit key lengths to encrypt the wireless data. The longer key length will provide higher security. When “WEP-64Bits” is selected, you have to enter exactly 5 ASCII characters (“a-z” and “0-9”) or 10 hexadecimal digits ("0-9", "a-f") for each Key (1-4).
WEP-128Bits	When “WEP-128Bits” is selected, you have to enter exactly 13 ASCII characters (“a-z” and “0-9”) or 26 hexadecimal digits ("0-9", "a-f") for each Key (1-4).
WPA-PSK	WPA-PSK is suitable for home and small business. It uses TKIP or AES for data encryption. When “WPA-PSK” is selected, please select the encryption method and enter 8-63 ASCII characters or 64 hexadecimal characters as the “Pre-Shared Key”.
WPA2-PSK	WPA2-PSK is also for home and small business. It uses TKIP or AES for data encryption. WPA2-PSK offers the highest level of security available. When “WPA2-PSK” is selected, please select the encryption method and enter 8-63 ASCII characters or 64 hexadecimal characters as the “Pre-Shared Key”.
WPA-PSK/ WPA2-PSK	When “WPA-PSK/WPA2-PSK” is selected, please select the encryption method (TKIP or AES) and enter 8-63 ASCII characters or 64 hexadecimal characters as the “Pre-Shared Key”.

- **Wireless MAC Address Filter**

Parameter	Description
Active	This router can prevent the wireless clients from accessing the wireless network by checking the MAC Address of the clients. If you enable this function, please set the MAC Address of the wireless clients that you want to filter.
Action	Allow Association – Only allow the wireless clients with the MAC Address you have specified can access to the router. Deny Association – The wireless clients with the MAC Address you have specified will be denied accessing to the router.
Mac Address #1-8	Please enter the MAC Address of the wireless clients for the filtering control.

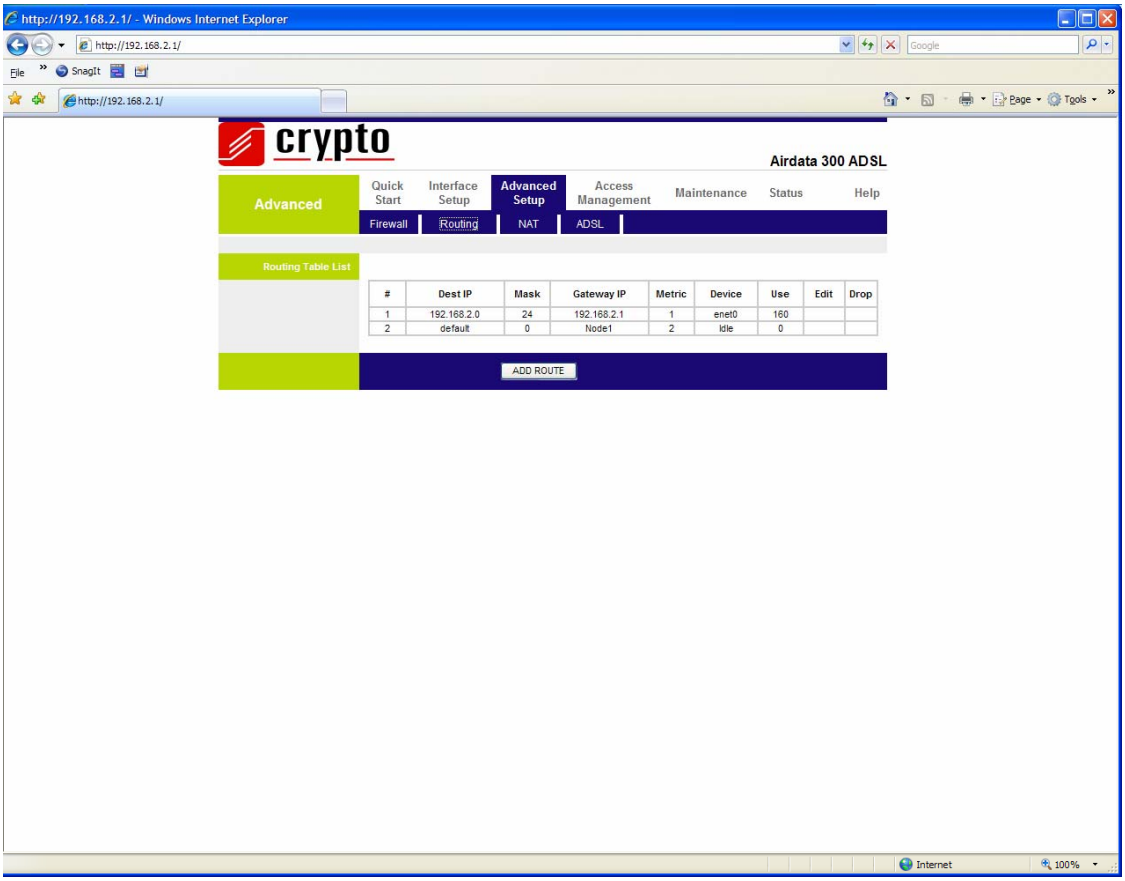
7. Advanced Setup

7.1 Firewall



Parameter	Description
Firewall	When you enable the firewall function, it will protect you from following attacks of WAN side: • SYN flooding attack • Ping of Death • Teardrop • Land attack
SPI	If you enable SPI, all traffics initiated from WAN site will be blocked including DMZ, Virtual Server, etc.

7.2 Routing



- **Routing Table List**

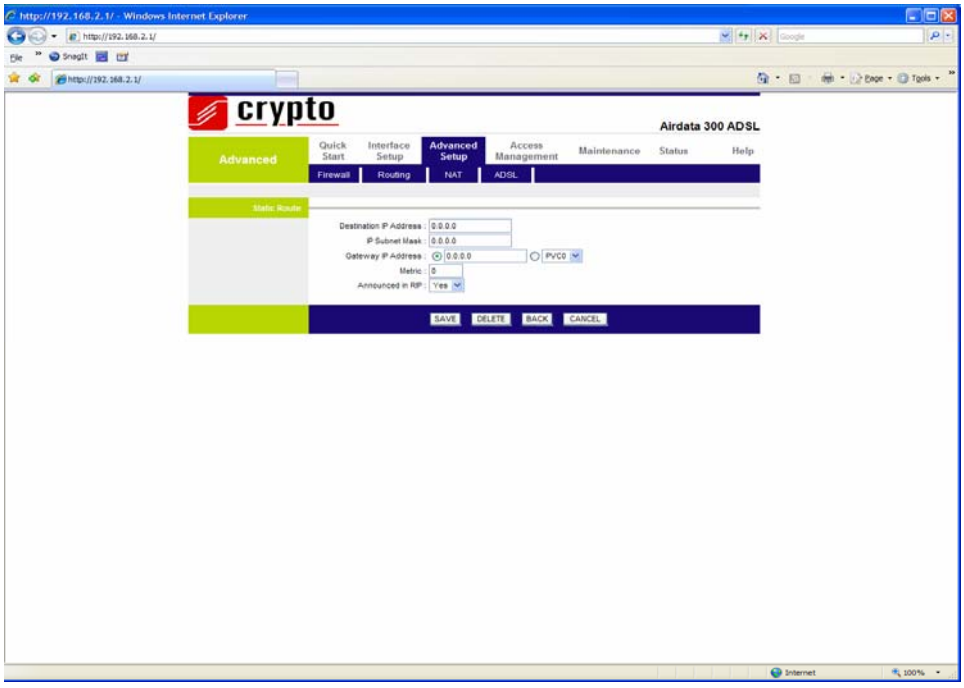
You can see the current routing table of the router here. If you want to add another routing rule, please click “ADD ROUTE”.

Parameter	Description
Dest IP	Show the IP Address of the destination LAN.
Mask	Show the Subnet Mask of the destination LAN. If it shows “8” that means the Subnet Mask is “255.0.0.0”; “16” means the Subnet Mask is “255.255.0.0”; “24” means the Subnet Mask is “255.255.255.0”.

Parameter	Description
Gateway IP	The next stop gateway of the path toward the destination LAN. This is the IP of the neighbor router that this router should communicate with on the path to the destination LAN.
Metric	The number of hops (routers) to pass through to reach the destination LAN. It must be between 1 and 15.
Device	Show the interface that go to the next hop (router), such as LAN port.
Use	The counter for access time.
Edit	Edit the route, this icon is not shown for system default route.
Drop	Drop the route, this icon is not shown for system default route.

- **Add Route**

If you have another router with a LAN-to-LAN connection, you may need to create a static routing on the router that is the gateway to Internet.

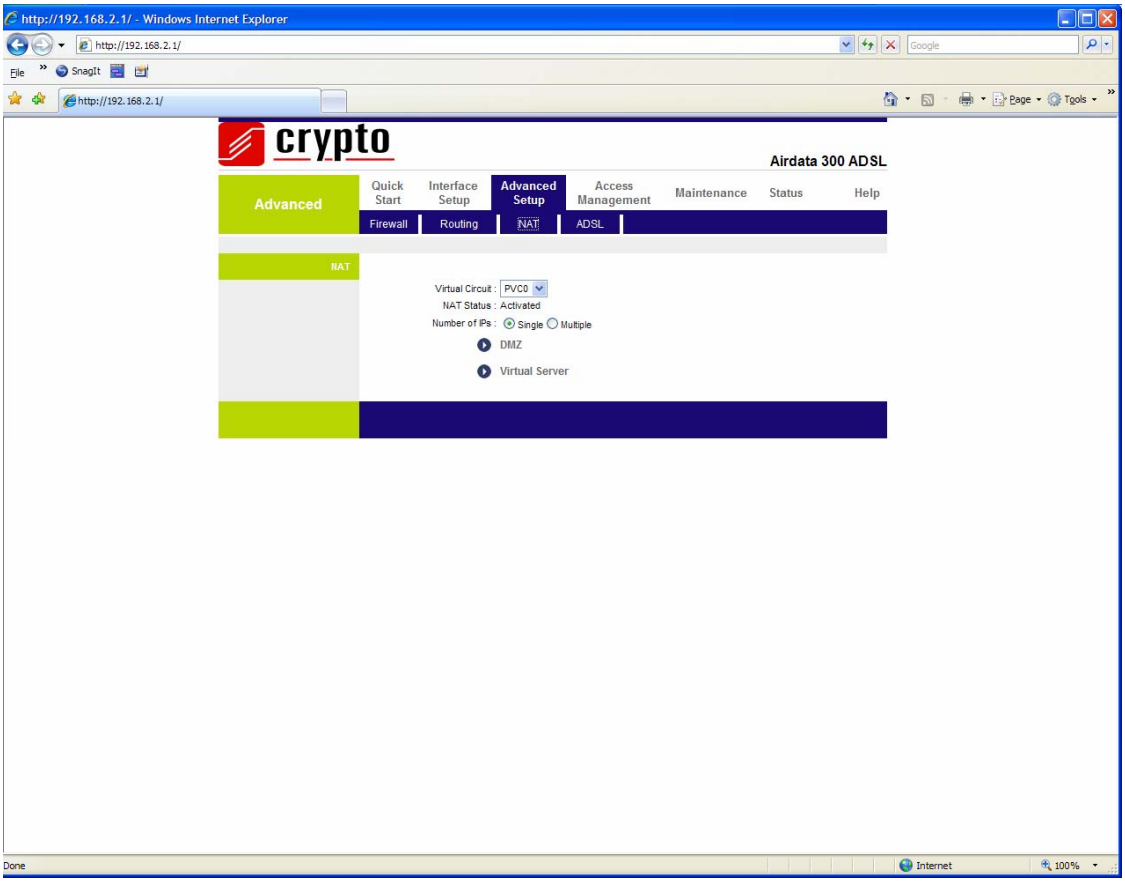


Parameter	Description
Destination IP Address	Enter the IP Address of the destination LAN.
IP Subnet Mask	Enter the Subnet Mask address of the destination LAN.
Gateway IP Address	This is the gateway IP Address where packets are sent. Enter the gateway IP Address and select the channel (PVC) you want to configure.
Metric	The number of hops (routers) to pass through to reach the destination LAN. It must be between 1 and 15.

Parameter	Description
Announced in RIP	Select “Yes”, this routing path will be propagated to other hosts through RIP broadcasts. Select “No”, this routing path will be kept private and it is not included in RIP broadcasts.

7.3 NAT

Network Address Translation (NAT) allows multiple users at your local site to access the Internet through a single Public IP Address or multiple Public IP Addresses. NAT provides Firewall protection from hacker attacks and has the flexibility to allow you to map Private IP Addresses to Public IP Addresses for key services such as Websites and FTP.

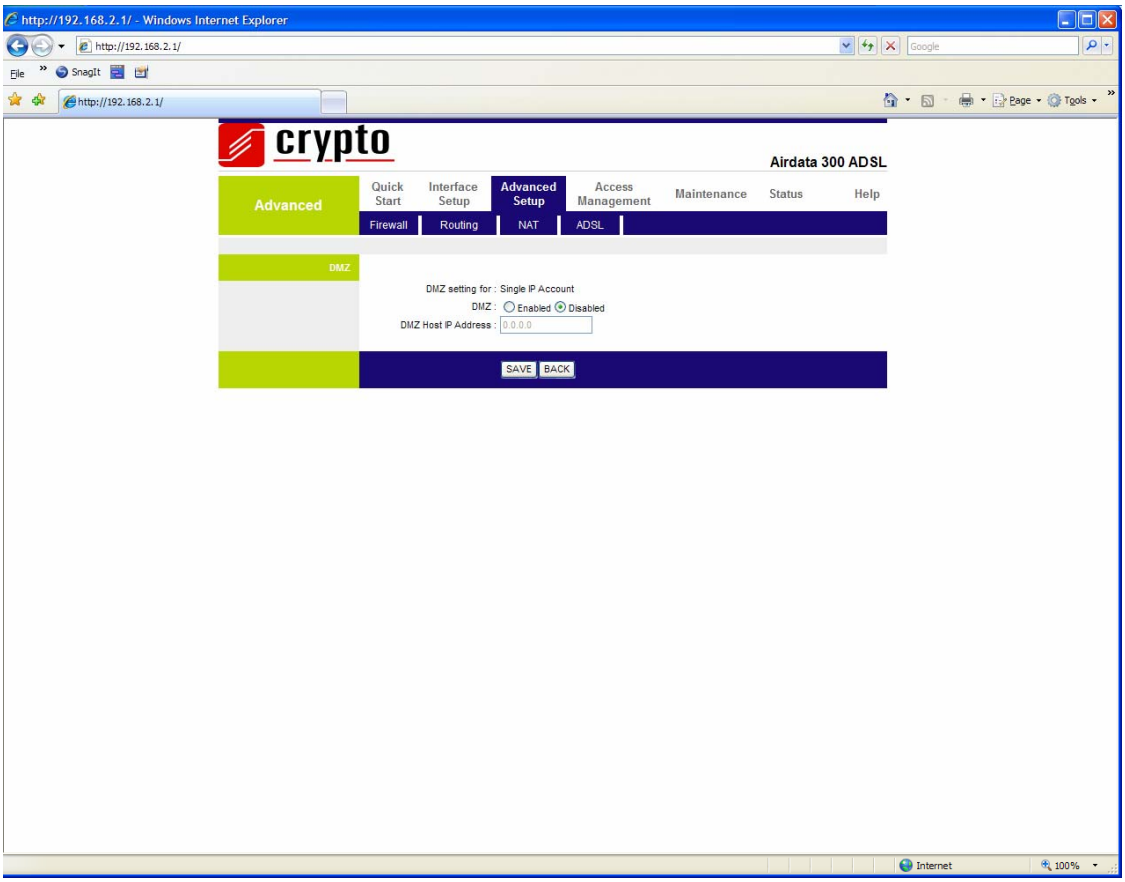


Parameter	Description
Virtual Circuit	Please select the channel (PVC) you want to configure.
NAT Status	The activated or deactivated status for the NAT function will be shown here.
Number of IPs	Select “Single” if you only have a public IP Address. Select “Multiple” if you have multiple IP Addresses.

DMZ

The DMZ Host is a local computer exposed to the Internet. When setting a particular internal IP Address as the DMZ Host, all incoming packets will be checked by the firewall and NAT algorithms then passed to the DMZ Host.

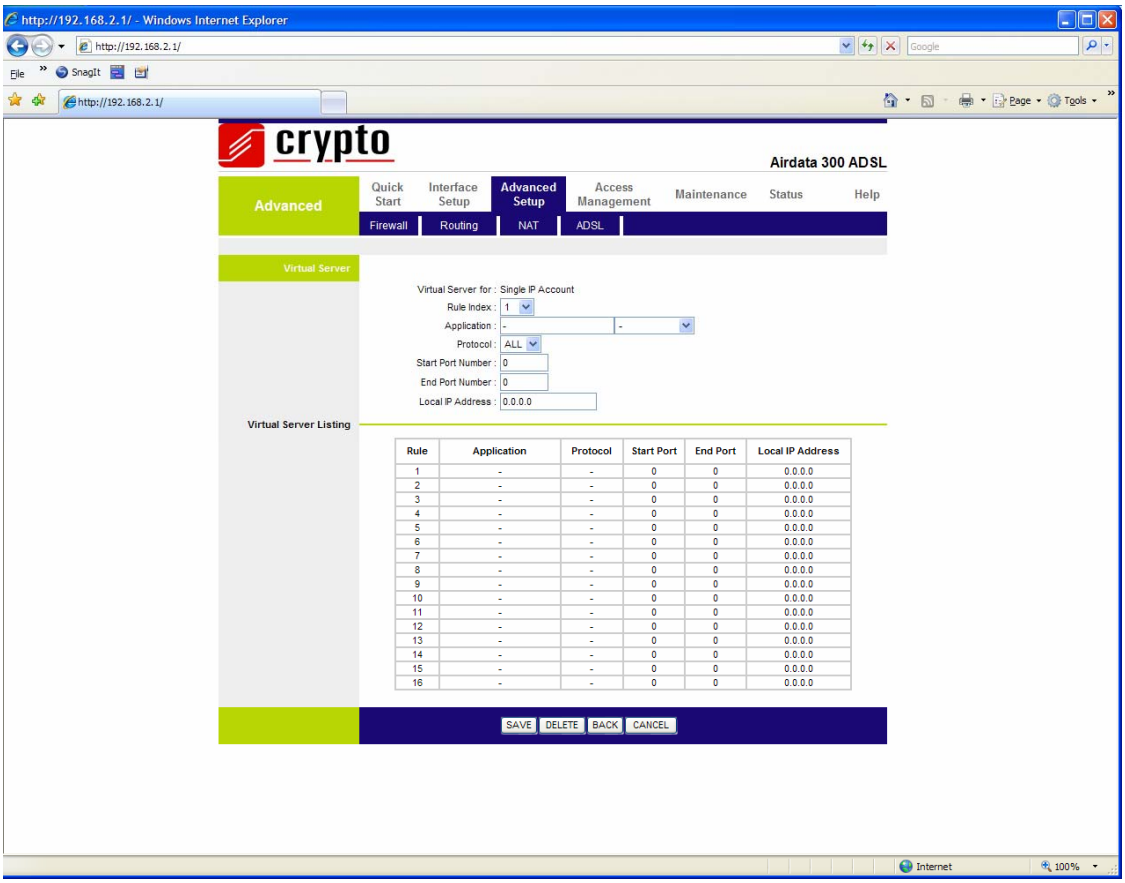
For example, if you have a local client PC that cannot run an Internet application (e.g. Games) properly from behind the NAT firewall, then you can open the client up to unrestricted two-way Internet access by defining a DMZ Host.



Parameter	Description
DMZ setting for	Shows the DMZ setting for single or multiple IP Addresses.
DMZ	Enable or disable the DMZ function.
DMZ Host IP Address	Enter a static IP Address to the DMZ Host. This IP Address will be exposed to the Internet.

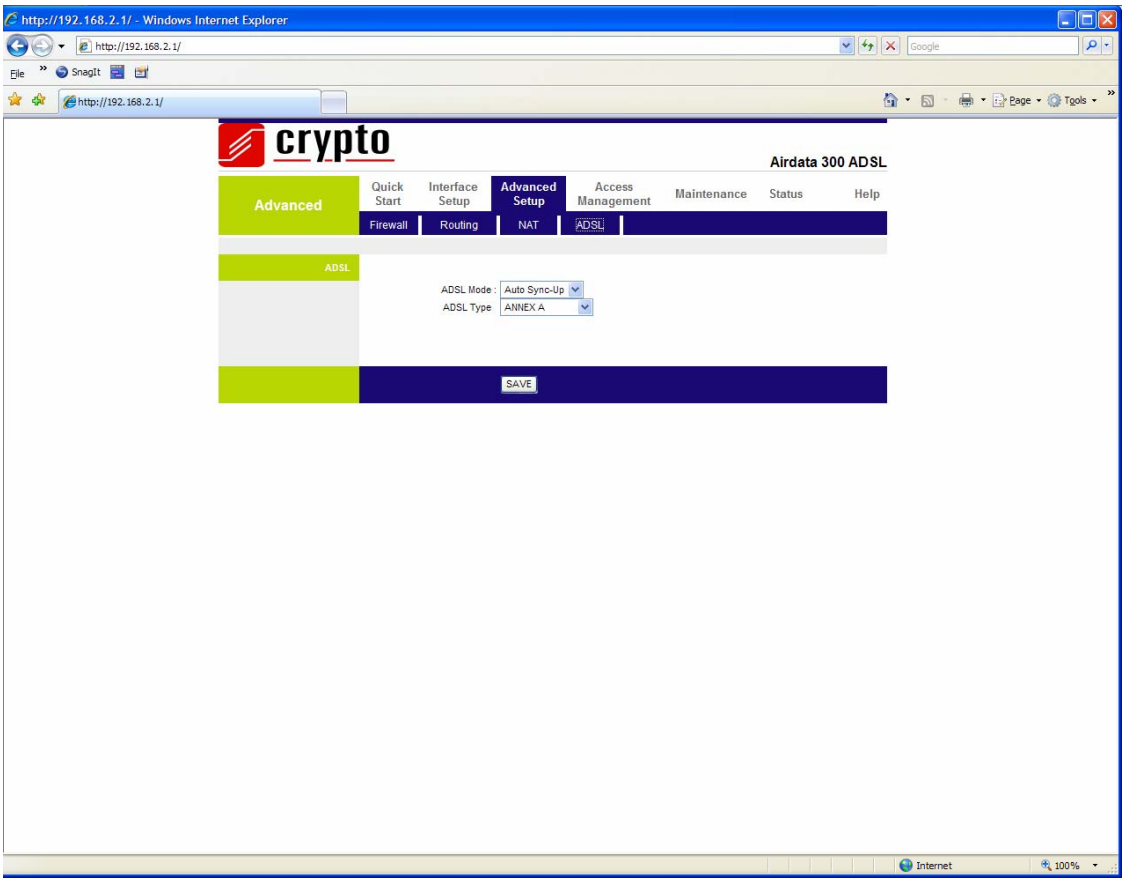
Virtual Server

Use the Virtual Server function when you want different servers/clients in your LAN to handle different service/Internet application type (e.g. Email, FTP, Web server etc.) from the Internet. Computers use numbers called port numbers to recognize a particular service/Internet application type. The Virtual Server allows you to re-direct a particular service port number (from the Internet/WAN) to a particular LAN private IP Address and its service port number.



Parameter	Description
Virtual Server for	Shows the Virtual Server setting for single or multiple IP Addresses.
Rule Index	Choose the rule number.
Application	Select the application of the virtual server, for example: FTP or HTTP Server. When the application is selected, the port number for the application will be assigned automatically.
Parameter	**Description**
Start Port Number	Enter the start port number.
End Port Number	Enter the end port number.
Local IP Address	It is recommended to enter a static IP Address for the server here. If the server's IP Address is obtained from DHCP Server, the IP Address may be changed dynamically and will cause problem on this feature. Please assign a static IP Address to the server and make sure that the IP Address is not in the range of IP Addresses that the DHCP Server will assign.

7.4 ADSL

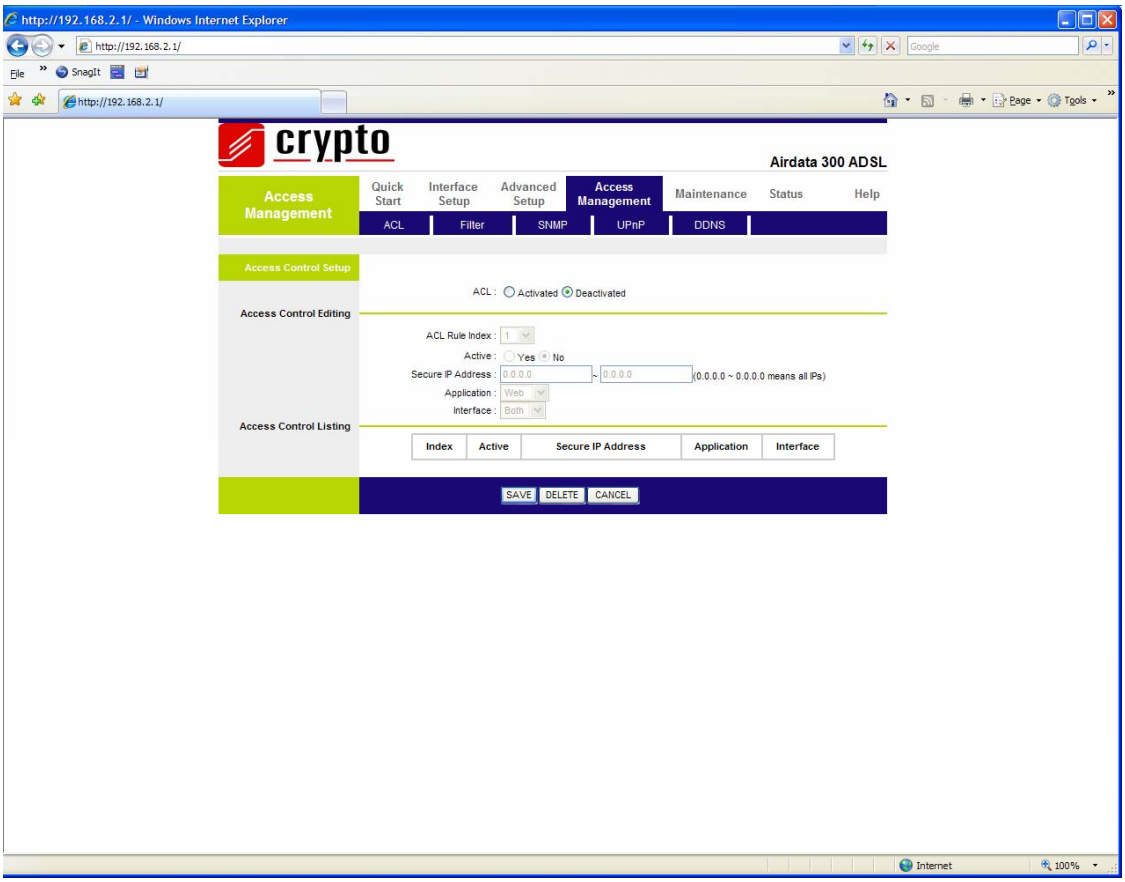


Parameter	Description
ADSL Mode	The default setting is “Auto Sync-Up”. This mode will automatically detect the ADSL mode including ADSL2+, ADSL2, G.DMT, T1.413 and G.lite. If you are not sure how to select the ADSL mode, please contact your ISP.
ADSL Type	Check with your ISP about the ADSL type of the DSLAM device they use.

8. Access Management

8.1 ACL

If you want to restrict users from accessing certain Internet applications/services such as Internet websites, email, FTP etc., then this is the place to set that configuration. Access Control allows users to define the traffic type permitted in your LAN or WAN. You can control which computer can have access to these services by entering the IP Address of the computer.



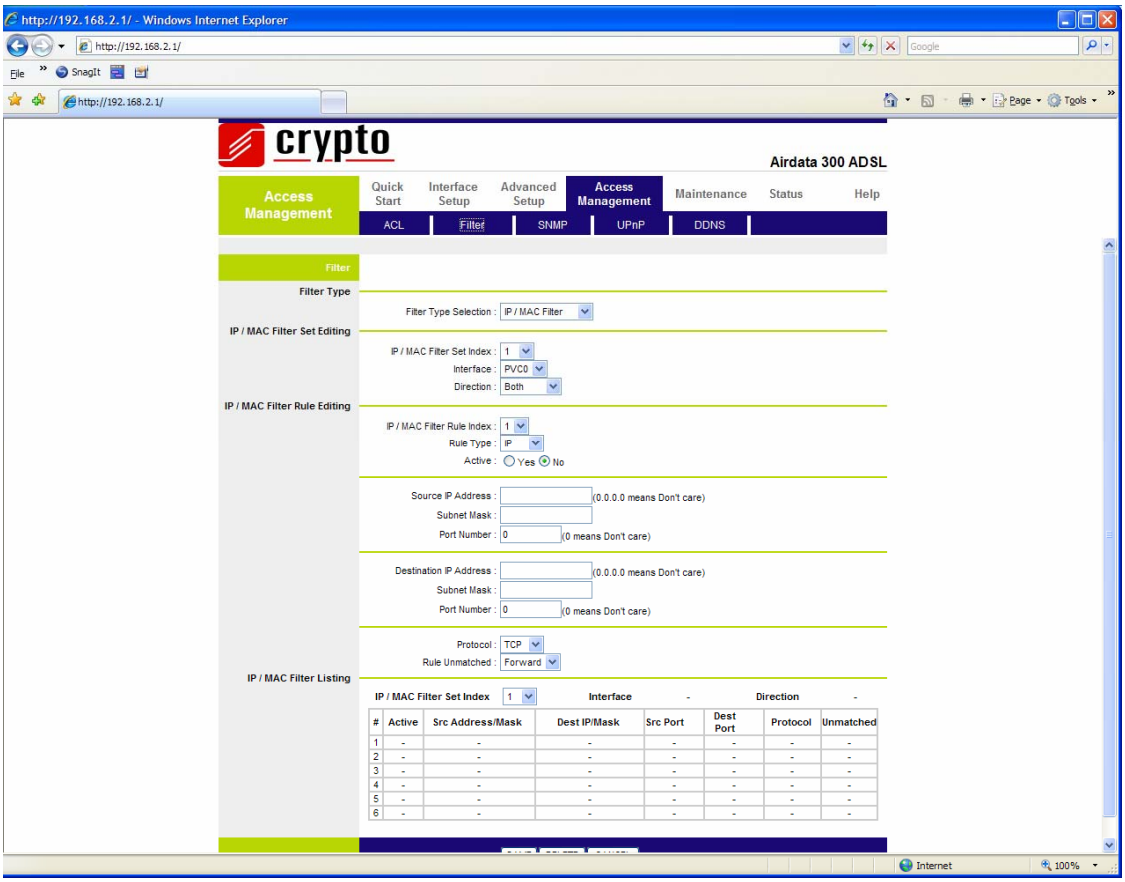
Parameter	Description
ACL	Activate or deactivate the Access Control function. When you have activated the function, please do make sure that you have designated the available applications/services or you will be denied access to all services.

ACL Rule Index	This is the item number to record the setting rule.

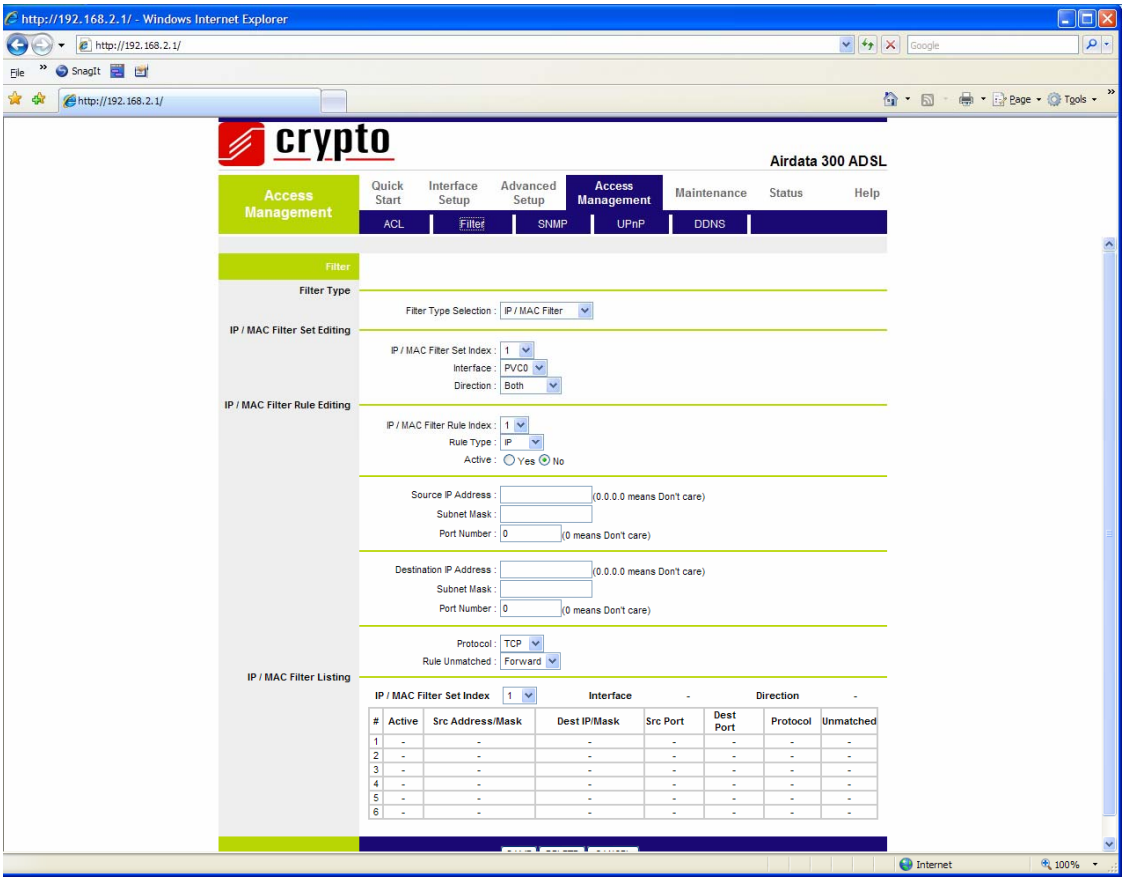
Parameter	Description
Secure IP Address	The default 0.0.0.0~0.0.0.0 allows any user to use this service to remotely manage the router. Type a range of IP Addresses to authorize access to a number of users with matching IP Addresses.
Application	Choose the services that you permit to use in your LAN or WAN interface. These services include Web, FTP, Telnet, SNMP and Ping.
Interface	Select the interface that the user is allowed to use services through it. It includes LAN, WAN or Both.

8.2 Filter

You can forbid some users accessing the router by filtering the users IP Address or MAC Address. You can also restrict some applications or URLs be accessed by users through the router here. Please select the filter type to start the configuration.


http://192.168.2.1/ - Windows Internet Explorer
crypto
Airdata 300 ADSL
Access Management
Quick Start
Interface Setup
Advanced Setup
Access Management
Maintenance
Status
Help
ACL
Filter
SNMP
UPnP
DDNS
Filter
Filter Type
Filter Type Selection : IP / MAC Filter
IP / MAC Filter Set Editing
IP / MAC Filter Set Index : 1
Interface : PVC0
Direction : Both
IP / MAC Filter Rule Editing
IP / MAC Filter Rule Index : 1
Rule Type : IP
Active : Yes No
Source IP Address : (0.0.0.0 means Don't care)
Subnet Mask :
Port Number : 0 (0 means Don't care)
Destination IP Address : (0.0.0.0 means Don't care)
Subnet Mask :
Port Number : 0 (0 means Don't care)
Protocol : TCP
Rule Unmatched : Forward
IP / MAC Filter Listing
IP / MAC Filter Set Index 1 Interface - Direction -
Active Src Address/Mask Dest IP/Mask Src Port Dest Port Protocol Unmatched
1 - - - - - - -
2 - - - - - - -
3 - - - - - - -
4 - - - - - - -
5 - - - - - - -
6 - - - - - - -
Internet
100%

8.3 IP/MAC Filter



- **IP / MAC Filter Set Editing**

Parameter	Description
IP/MAC Filter Set Index	This is the item number to record the setting.
Interface	Select which channel (PVC) to configure.
Direction	Select the access to the Internet (Outgoing) or from the Internet (Incoming), or Both.

- **IP / MAC Filter Rule Editing**

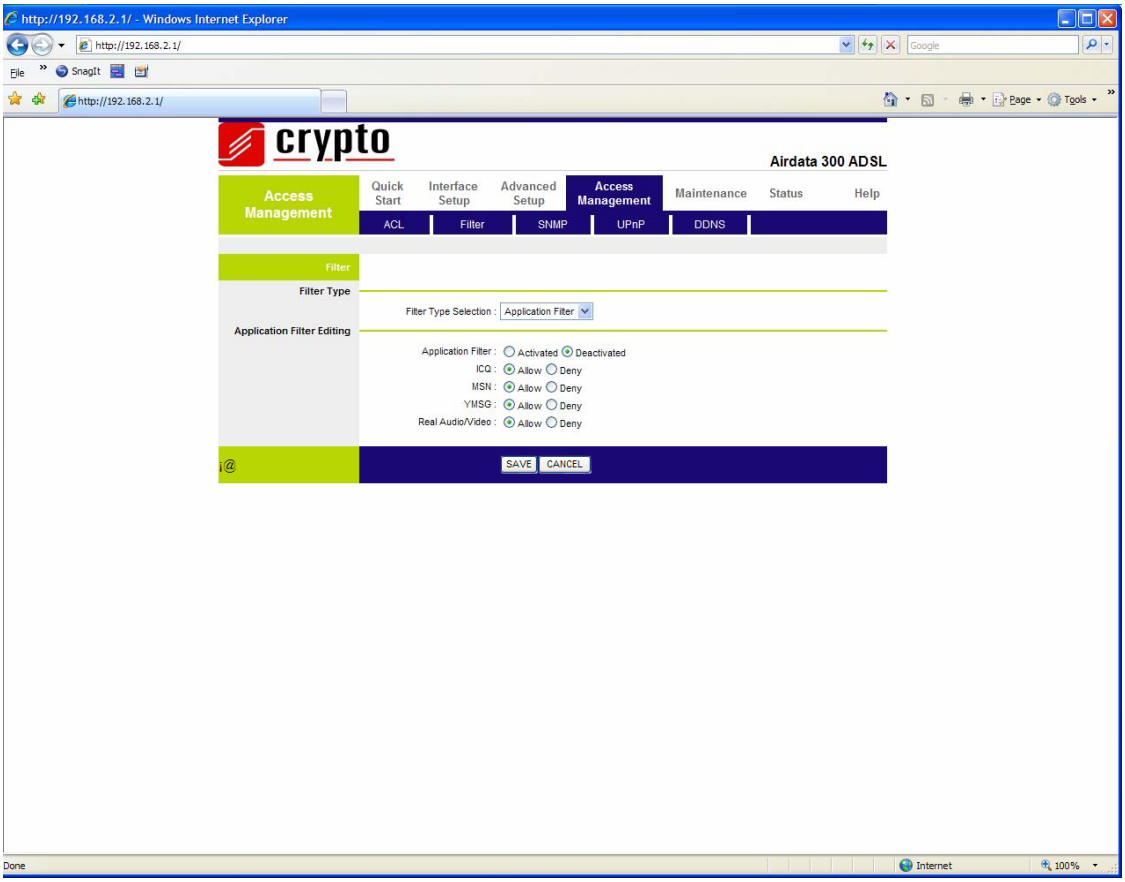
Parameter	Description
IP/MAC Filter Rule Index	This is the item number to record the setting rule.
Rule Type	Select to filter through the IP Address or MAC Address.
Active	Select “Yes” to enable the current rule, select “No” to cancel the current rule.
Source IP Address	Enter the start IP Address which will be monitored. If “0.0.0.0” is set, it means for any IP Address.
Subnet Mask	Enter the Subnet Mask based on the Source IP Address.
Port Number	LAN users use port number to distinguish one network application over another such as 21 for FTP service. The port number range is from 0 to 65535. It is recommended that this option is configured by an advanced user.
Destination IP Address	Enter the start IP Address which will be monitored. If “0.0.0.0” is set, it means for any IP Address.
Subnet Mask	Enter the Subnet Mask based on the Destination IP Address.
Port Number	This is the port or port ranges that define the application.
Protocol	It is the packet protocol type used by the application. Please select “TCP”, “UDP” or “ICMP”. For example, FTP service, you have to select “TCP”.

Parameter	Description
Rule Unmatched	Select action for the traffic unmatching current rule. “Forward” is to leave it pass through; “Next” is to check it by the next rule.

- **IP / MAC Filter Listing**

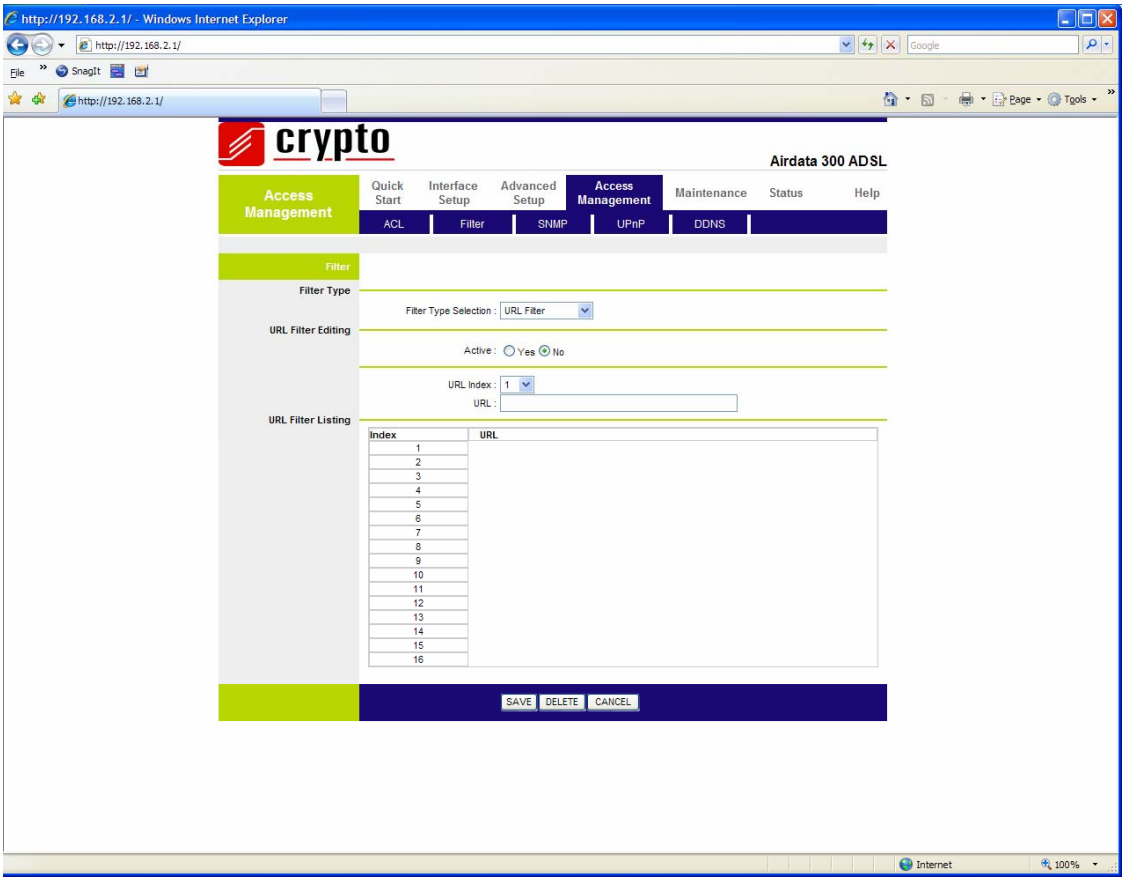
The IP/MAC Filter Listing will list the IP/MAC Filter rules you have configured. You can review the settings here.

8.4 Application Filter



Parameter	Description
Application Filter	Activate or deactivate the application filter.
ICQ/MSN/YMSG/Real Audio/Video	If “Allow” is selected, the packets for these applications will be able to pass through the router. If you want to restrict these applications, please select “Deny”.

8.5 URL Filter



- **URL Filter Editing**

Parameter	Description
Active	Activate or deactivate the URL filter.

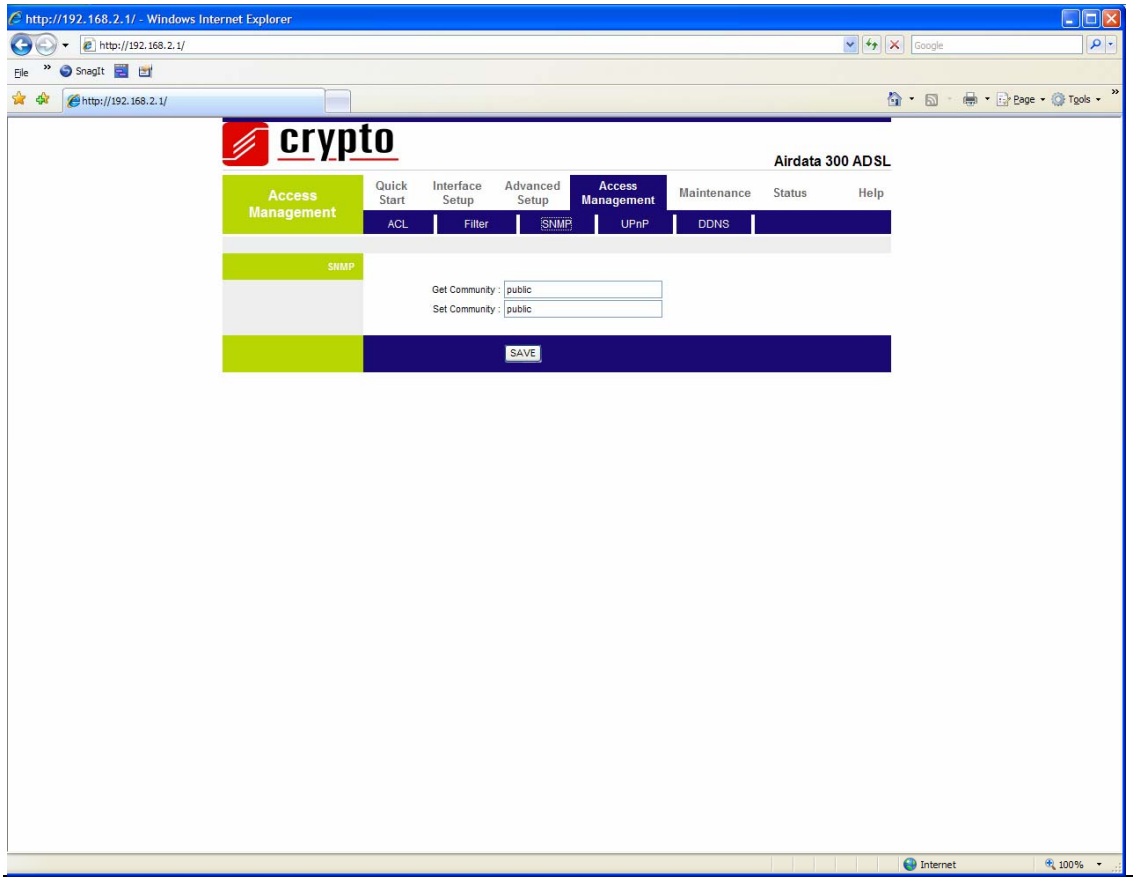
URL Index	This is the item number to record the setting.
URL	A URL can be thought of as the "address" of a web page and is sometimes referred to informally as a "web address." Please enter the web address here that you want to restrict to be connected.

- **URL Filter Listing**

The URL Filter Listing will list the URL you have configured. You can review the settings here.

8.6 SNMP

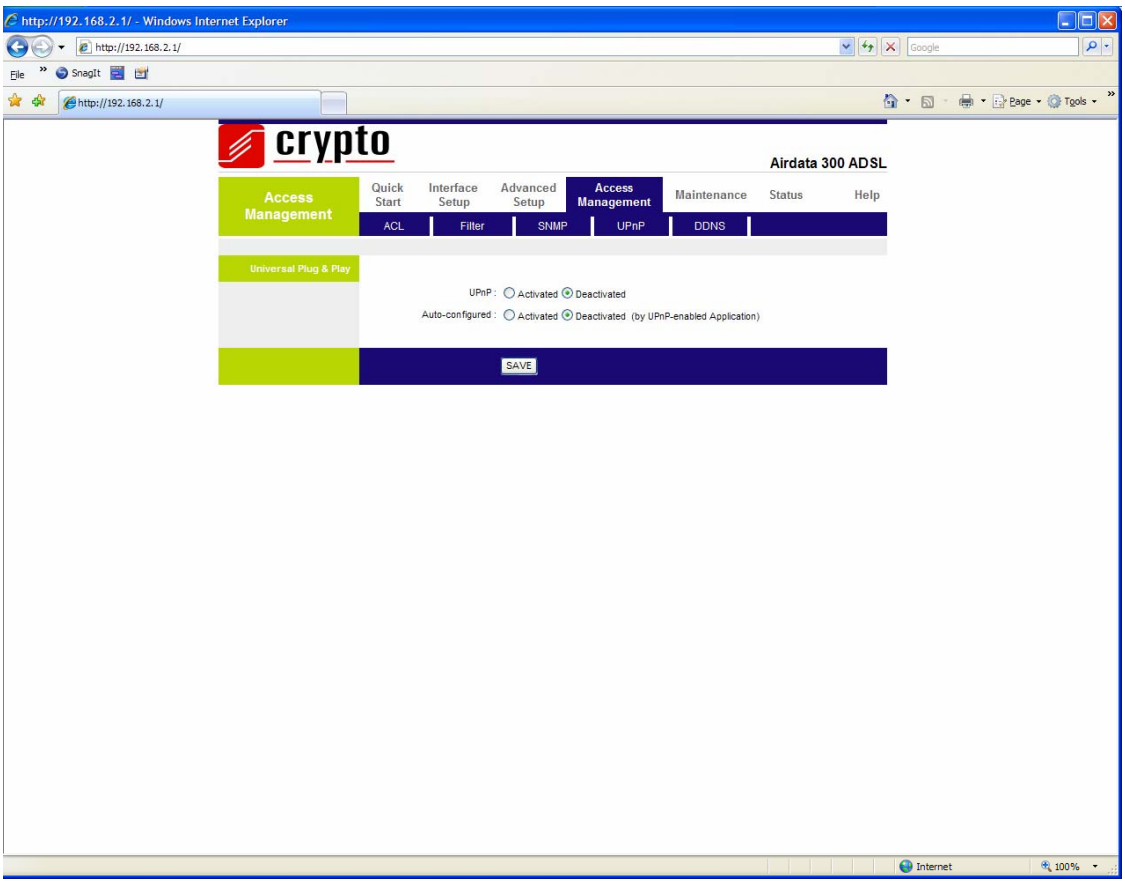
Simple Network Management Protocol (SNMP) is a popular protocol for network management. It is used for collecting information and configuring the network devices. This router supports SNMP agent function, which allows a manager station to manage and monitor the router through the network.



Parameter	Description
Get Community	Enter the password for the incoming Get- and GetNext requests from the management station.
Set Community	Enter the password for a Set request to configure the router.

8.7 UPnP

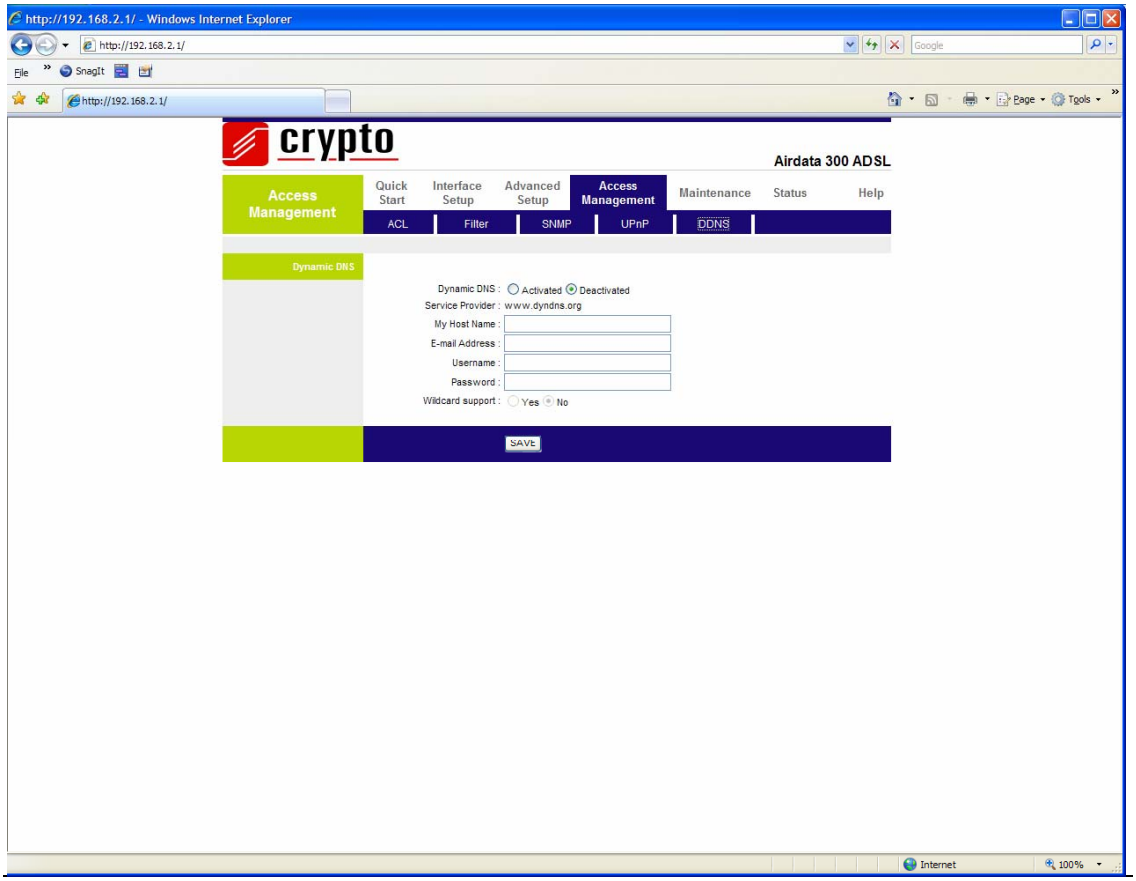
When the UPnP function is enabled, the router can be detected by UPnP compliant systems such as Windows XP. The router will be displayed in the Neighborhood of Windows XP, so you can directly double click the router or right click the router and select “Invoke” to configure the router through web browser.



Parameter	Description
UPnP	Activated or deactivated the UPnP function.
Auto-configured	Select this check box to allow UPnP-enabled applications to automatically configure the router so that they can communicate through the router, for example by using NAT traversal, UPnP applications automatically reserve a NAT forwarding port in order to communicate with another UPnP enabled device; this eliminates the need to manually configure port forwarding for the UPnP enabled application.

8.8 DDNS

DDNS allows you to map the static domain name to a dynamic IP address. You must get an account, password and your static domain name from the DDNS service providers.

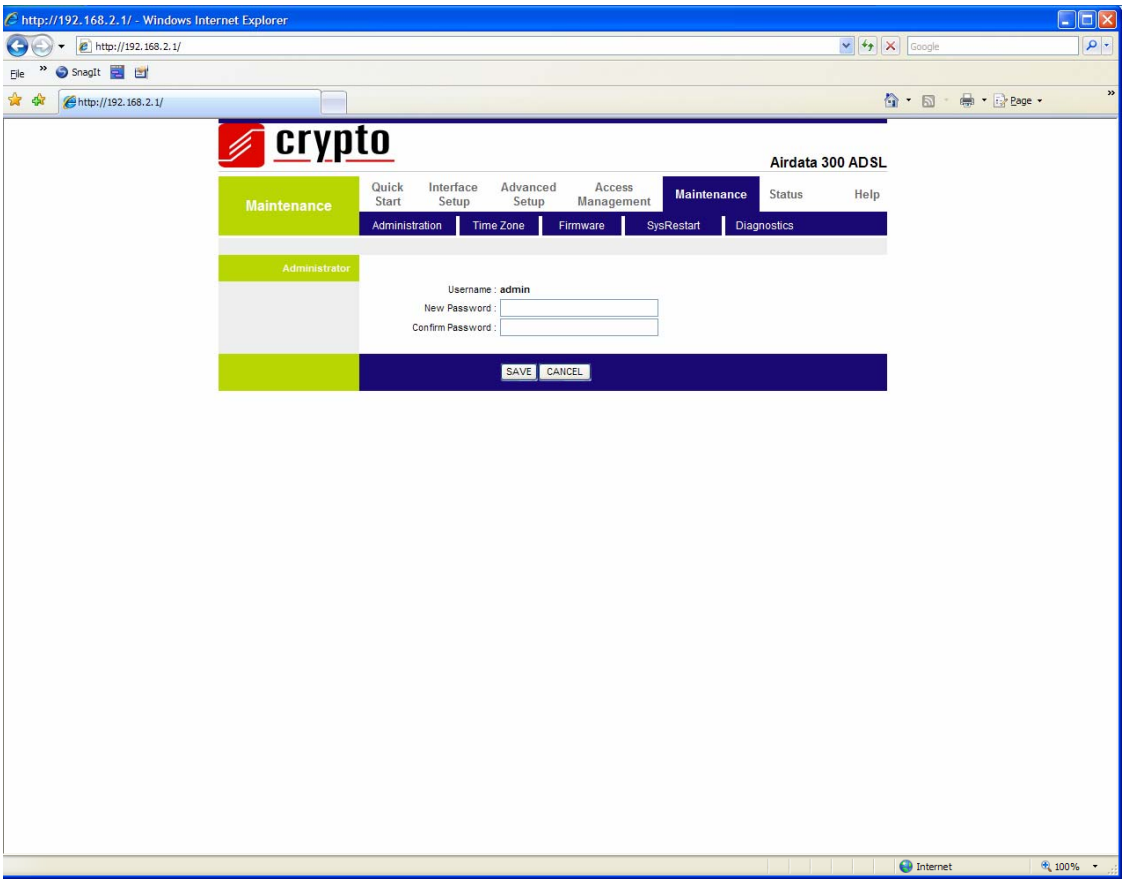


Parameter	Description
Dynamic DNS	Activated or deactivated the DDNS function.
Service Provider	This router supports DynDNS service provider.
My Host Name	Enter the domain name assigned to your router by the service provider.
E-mail Address	Enter the E-mail address assigned by DDNS service provider.
Username	Enter your username.

Parameter	Description
Password	Enter the password you set for the DDNS service.
Wildcard Support	Enable or disable the wildcard to stand for some characters.

9. Maintenance

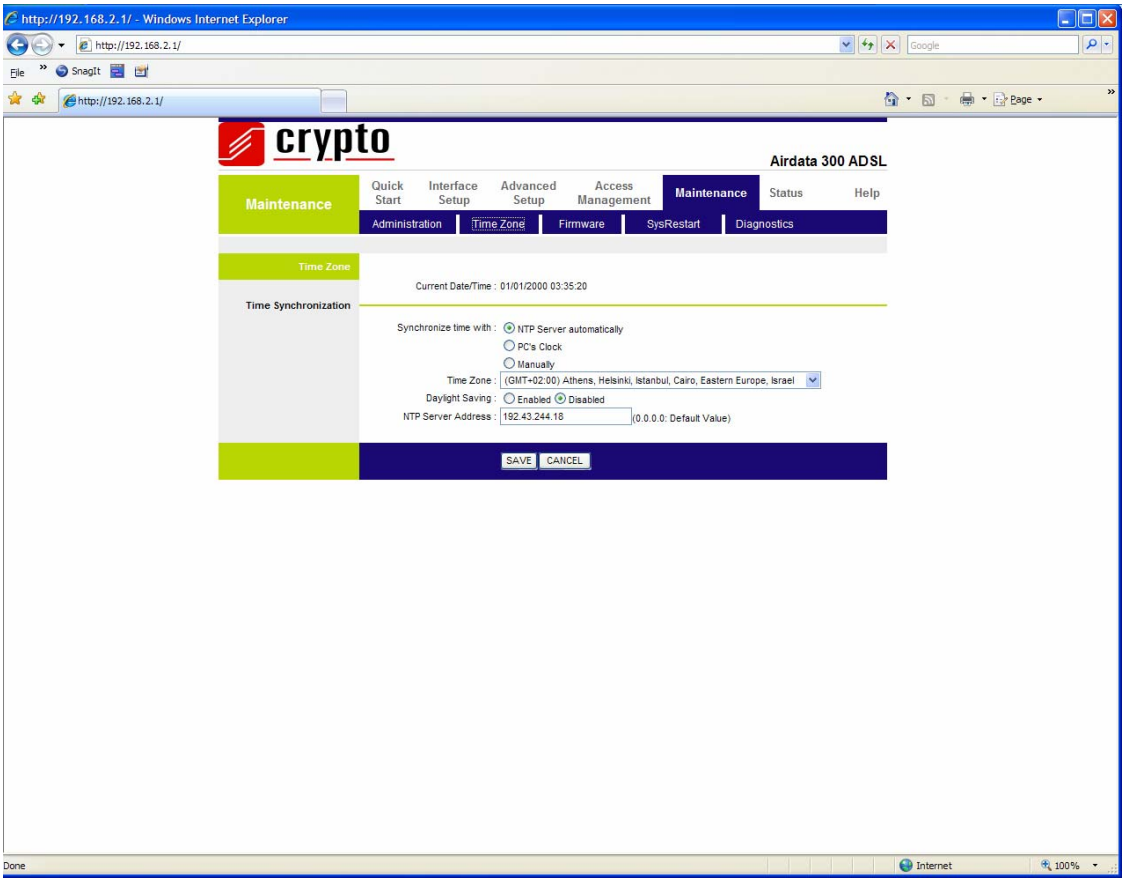
9.1 Administrator



Parameter	Description
Username	The username of the router is “admin” by default.
New Password	Enter up to 30-digit of the new password.
Confirm Password	Enter the new password again to confirm the setting.

9.2 Time Zone

The Time Zone allows your router to set its time; this will affect function such as System Log.

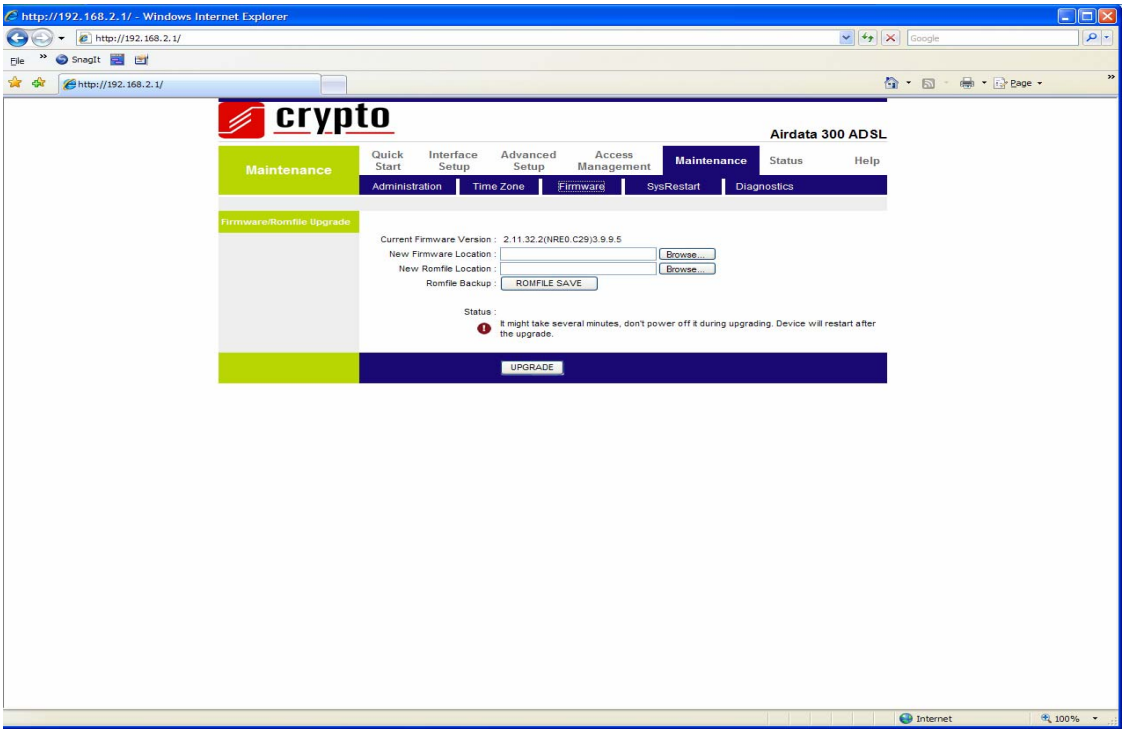


Parameter	Description
Current Date/Time	Show the current date/time of the router.
Synchronize time with	NTP Server Automatically – Set the time by following with a NTP Server. PC's Clock – Set the time the same as your computer. Manually – Set the time manually.
Time Zone	Select the time zone of the country you are currently in. The router will set its time based on your selection.

Daylight Saving	Select this option if it is in daylight savings time.
NTP Server Address	Enter the IP Address of your time server.

9.3 Firmware

If you have new firmware for some features update, you can update the firmware of the router here.



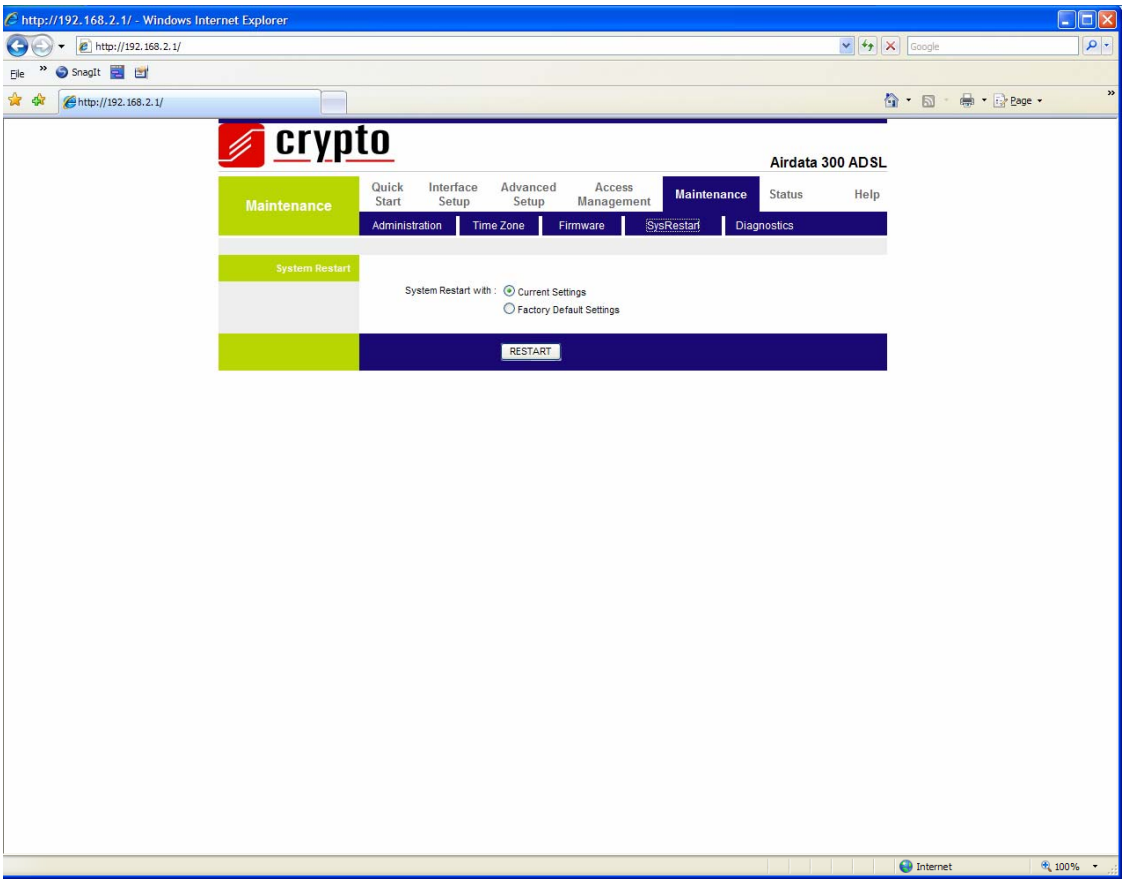
Parameter	Description
Current Firmware Version	The current firmware version will be shown here.
New Firmware Location	Type in the location of the new firmware or click “Browse” to find it.
New Romfile Location	To restore the backup settings, please type in the location of the backup file or click “Browse” to find it.

Romfile Backup	To save the current settings as a backup file, please click "ROMFILE SAVE". Then please change the file name and select the location you want to save the file.

Parameter	Description
Upgrade	Click "Upgrade" to begin the upgrade processes or backup file restoring processes. After the router is restarted, the processes are completed. It might take several minutes, don't power off the router during upgrading or restoring.

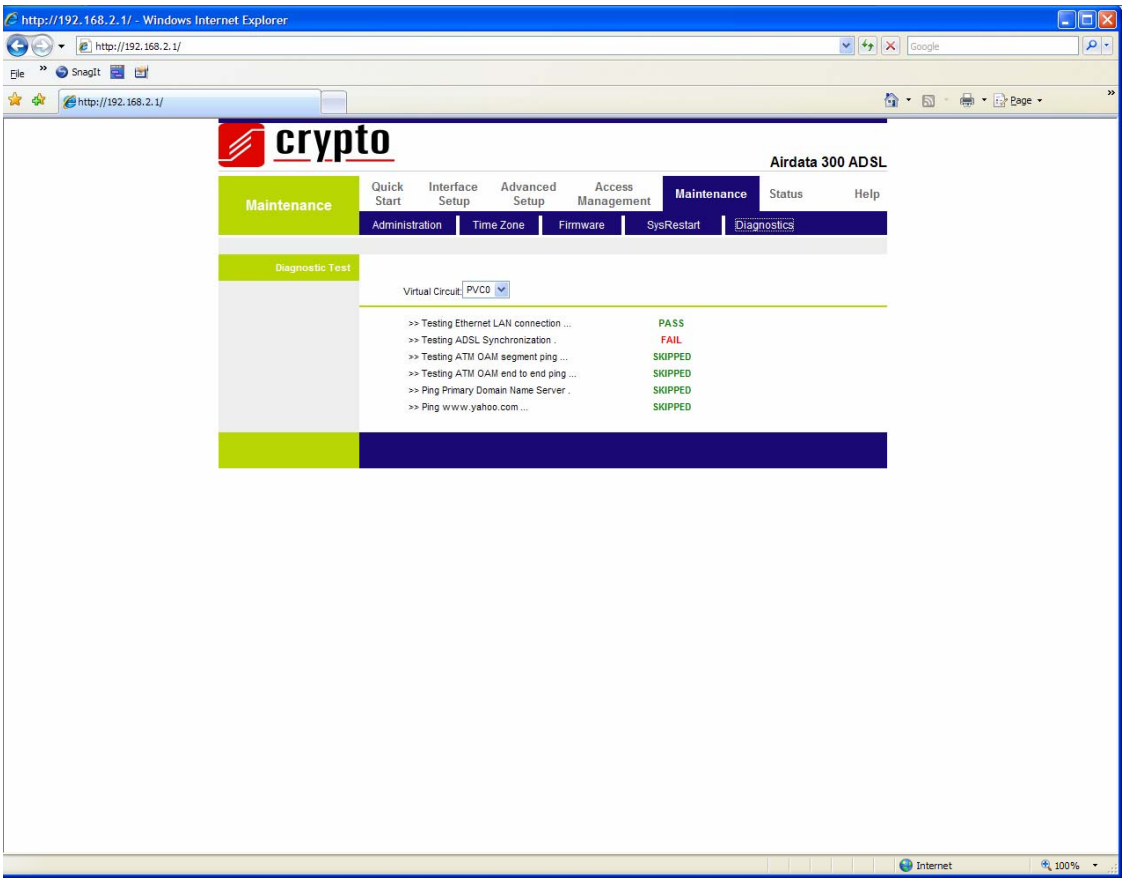
9.4 System Restart

In this page, you can restart your router or restore to factory defaults. If you wish to restart the router using the factory default settings, select "Factory Default Settings" to reset to factory defaults. You can also click the "Reset" button in the rear panel of the router over 5 seconds to reset default settings.



9.5 Diagnostics

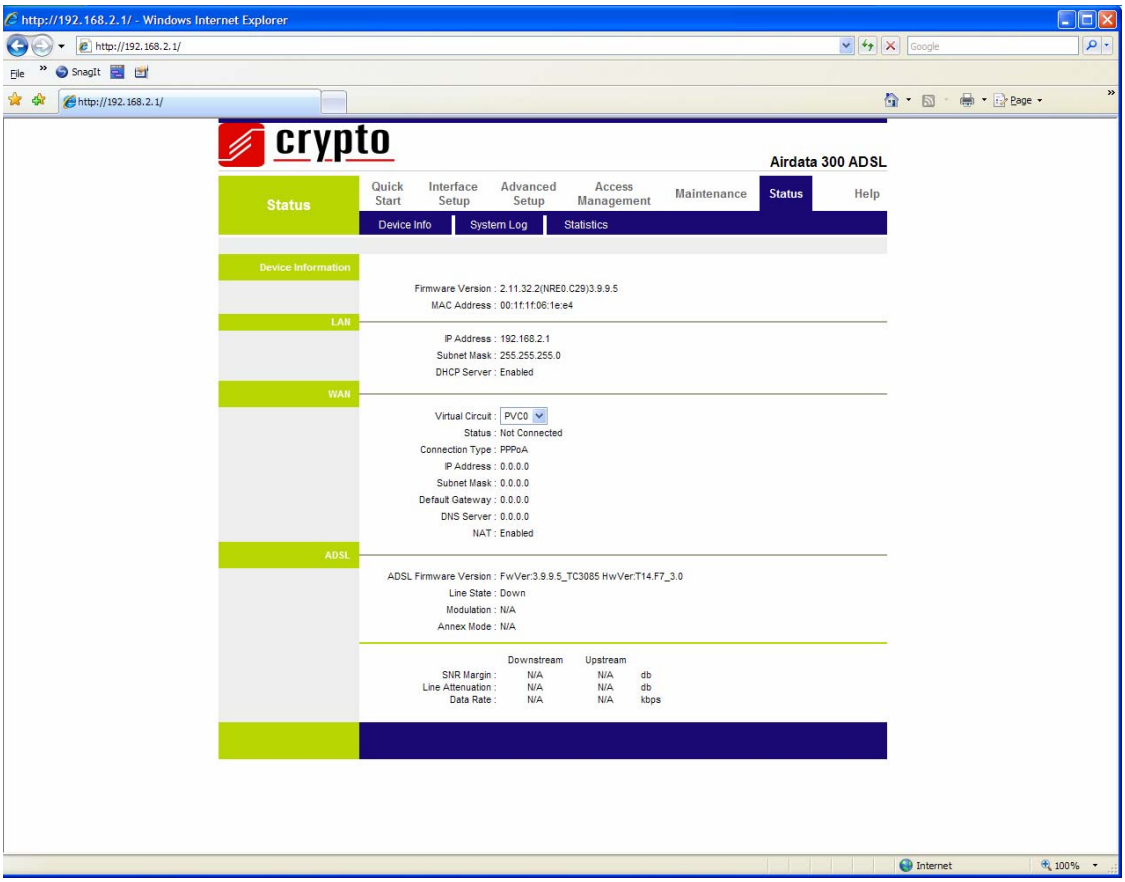
This page allows you to diagnose the connectivity of the LAN and WAN network.



10. Status

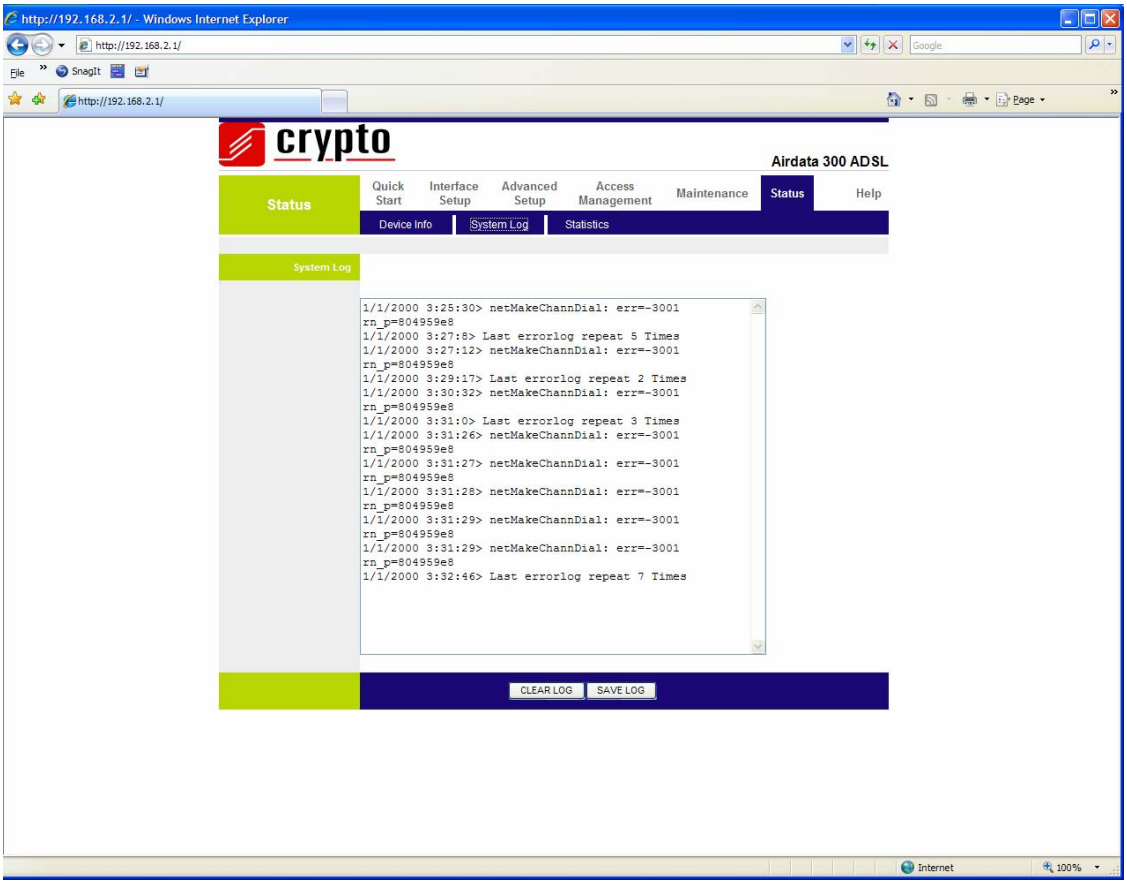
10.1 Device Info

In this page, you can see the device information including firmware, MAC Address, LAN and WAN settings and also the ADSL line status.



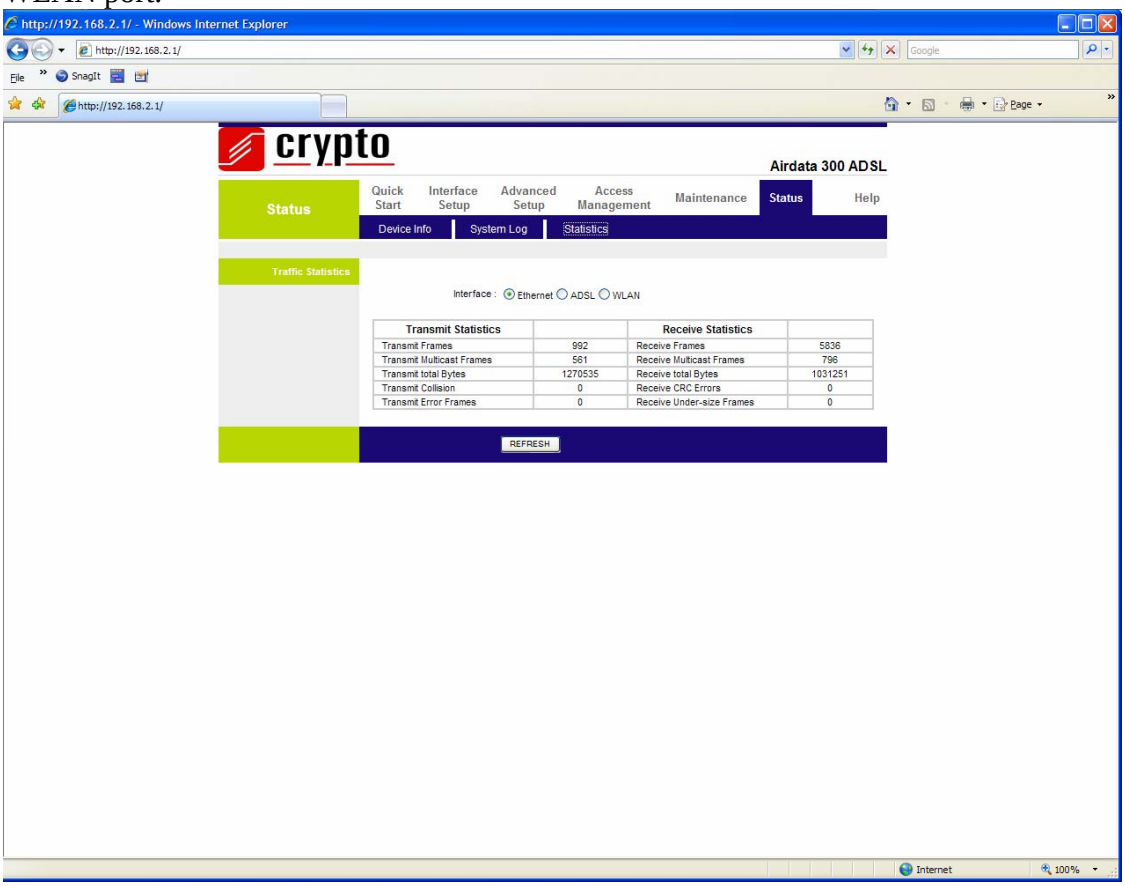
10.2 System Log

Displays system logs accumulated up to the present time. You can also save the logs for future reviewing.



10.3 Statistics

Shows the statistics of transmit and receive packets on the LAN port, ADSL line or WLAN port.



11. Technical Support

For technical information and support please contact us:

Web Site: www.crypto.gr

E-mail: support@crypto.gr

Disposal of old electrical and electronic equipment

If you see this symbol on the product or on its packaging, you should hand the product over to the applicable collection point for the recycling of electrical and electronic equipment. Do not throw it away with household wastes.

The improper disposal of these products may have negative consequences for the environment and human health.

For more information about the recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased it.